MEX-BT5000

SERVICE MANUAL

Ver. 1.0 2006.06

US Model
Canadian Model
AEP Model
UK Model
E Model

US and foreign patents licensed from Dolby Laboratories.

Model Name Using Similar Mechanism	MEX-1GP
CD Mechanism Type	MG-611WA-186//Q
Optical Pick-up Name	KSS1000E

BBE MP DIGITAL Manufactured under license from BBE Sound, Inc.
The BBE MP process improves digitally compressed sound, such as MP3, by restoring and enhancing the higher harmonics lost through compression. BBE MP works by generating even-order harmonics from the source material, effectively recovering warmth, detail and nuance.

SAT RADIO READY The "SAT Radio Ready" logo indicates that this product will control a satellite radio tuner module (sold separately). Please see your nearest authorized Sony dealer for details on the satellite radio tuner module.
"SAT Radio," "SAT Radio Ready," the SAT Radio and SAT Radio Ready logos and all related marks are trademarks of Sirius Satellite Radio Inc. and XM Satellite Radio Inc.

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Plays Windows Media™ Microsoft, Windows Media, and the Windows logo are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (US, Canadian only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23.2 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

CEA2006 Standard
Power Output: 17 Watts RMS × 4 at 4 Ohms < 1% THD+N
SN Ratio: 82 dBA
(reference: 1 Watt into 4 Ohms)

CD Player section

Signal-to-noise ratio: 120 dB
Frequency response: 10 – 20,000 Hz
Wow and flutter: Below measurable limit

Tuner section (US, Canadian)

FM

Tuning range: 87.5 – 107.9 MHz
Antenna terminal: External antenna connector
Intermediate frequency: 10.7 MHz/450 kHz
Usable sensitivity: 9 dBf
Selectivity: 75 dB at 400 kHz
Signal-to-noise ratio: 67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz: 0.5 % (stereo), 0.3 % (mono)
Separation: 35 dB at 1 kHz
Frequency response: 30 – 15,000 Hz

AM

Tuning range: 530 – 1,710 kHz
Antenna terminal: External antenna connector
Intermediate frequency: 10.7 MHz/450 kHz
Sensitivity: 30 µV

Tuner section (AEP, UK)

FM

Tuning range: 87.5 – 108 MHz
Aerial terminal: External aerial connector
Intermediate frequency: 10.7 MHz/450 kHz
Usable sensitivity: 9 dBf
Selectivity: 75 dB at 400 kHz
Signal-to-noise ratio: 67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz: 0.5 % (stereo), 0.3 % (mono)
Separation: 35 dB at 1 kHz
Frequency response: 30 – 15,000 Hz

MW/LW

Tuning range:
MW: 531 – 1,602 kHz
LW: 153 – 279 kHz
Aerial terminal: External aerial connector
Intermediate frequency: 10.7 MHz/450 kHz
Sensitivity: MW: 30 µV, LW: 40 µV

Tuner section (E)

FM

Tuning range:
87.5 – 108.0 MHz (at 50 kHz step)
87.5 – 107.9 MHz (at 200 kHz step)
FM tuning interval: 50 kHz/200 kHz switchable
Aerial terminal: External aerial connector
Intermediate frequency: 10.7 MHz/450 kHz
Usable sensitivity: 9 dBf
Selectivity: 75 dB at 400 kHz
Signal-to-noise ratio: 67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz: 0.5 % (stereo), 0.3 % (mono)
Separation: 35 dB at 1 kHz
Frequency response: 30 – 15,000 Hz

AM

Tuning range:
531 – 1,602 kHz (at 9 kHz step)
530 – 1,710 kHz (at 10 kHz step)
AM tuning interval: 9 kHz/10 kHz switchable
Aerial terminal: External aerial connector
Intermediate frequency: 10.7 MHz/450 kHz
Sensitivity: 30 µV

– Continued on next page –

BLUETOOTH AUDIO SYSTEM

9-887-268-01
2006F05-1
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Sony Corporation
eVehicle Division
Published by Sony Techno Create Corporation

SONY®

Wireless Communication

Communication System:
Bluetooth Standard version 2.0
Output:
Bluetooth Standard Power Class 2 (Max. +4 dBm)
Maximum communication range:
Line of sight approx. 10 m (32.8 ft)*1
Frequency band:
2.4 GHz band (2.4000 – 2.4835 GHz)
Modulation method: FHSS
Compatible Bluetooth Profiles*2:
A2DP (Advanced Audio Distribution Profile)
AVRCP (Audio Video Remote Control Profile)
HFP (Handsfree Profile)
OPP (Object Push Profile)

*1 *The actual range will vary depending on factors such as obstacles between devices, magnetic fields around a microwave oven, static electricity, reception sensitivity, antenna's perfomance, operating system, software application, etc.*
*2 *Bluetooth standard profiles indicate the purpose of Bluetooth communication between devices.*

Power amplifier section

Outputs: Speaker outputs (sure seal connectors)
Speaker impedance: 4 ñ 8 ohms
Maximum power output: 52 W × 4 (at 4 ohms)

General

Outputs:
Audio outputs terminal (front/rear)
Subwoofer output terminal (mono)
Power antenna relay control terminal
Power amplifier control terminal
Inputs:
Telephone ATT control terminal
Illumination control terminal
BUS control input terminal
BUS audio input/AUX IN terminal
Remote controller input terminal
Antenna input terminal
Tone controls:
Low: ±10 dB at 60 Hz or 100 Hz (XPLOD)
Mid: ±10 dB at 500 Hz or 1 kHz (XPLOD)
High: ±10 dB at 10 kHz or 12.5 kHz (XPLOD)
Power requirements: 12 V DC car battery (negative ground)
Dimensions: Approx. 178 × 50 × 183 mm ($7\ ^1/_8 \times 2 \times 7\ ^1/_4$ in) (w/h/d)
Mounting dimensions: Approx. 182 × 53 × 162 mm ($7\ ^1/_4 \times 2\ ^1/_8 \times 6\ ^1/_2$ in) (w/h/d)
Mass: Approx. 1.2 kg (2 lb 11 oz)
Supplied accessories:
Card remote commander: RM-X301 (US, Canadian)
RM-X302 (AEP, UK)
RM-X303 (E)
Parts for installation and connections (1 set)

Your dealer may not handle some of the above listed accessories. Please ask the dealer for detailed information.

MPEG Layer-3 audio coding technology and patents licensed from Fraunhofer IIS and Thomson.

Note
This unit cannot be connected to a digital preamplifier or an equalizer which is Sony BUS system compatible.

Design and specifications are subject to change without notice.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

• AEP, UK, E model

CLASS 1
LASER PRODUCT

This label is located on the bottom of the chassis.

CAUTION – CLASS 1M INVISIBLE LASER RADIATION WHEN OPEN.
DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SECTION 1
SERVICING NOTES

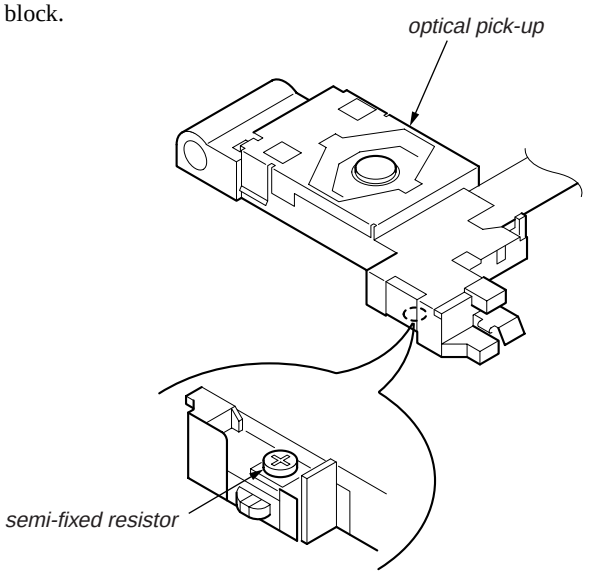
NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

Never look into the laser diode emission from right above when checking it for adjustment. It is feared that you will lose your sight.

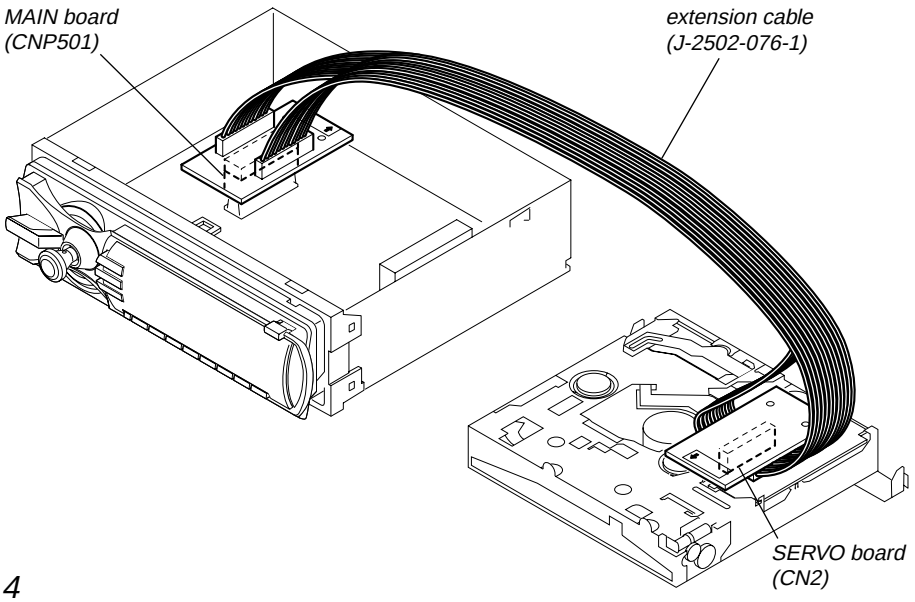
If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

- Connect the MAIN board (CNP501) and the SERVO board (CN2) with the extension cable (Part No. J-2502-076-1).



UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 ˚C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 ˚C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

THE VERSION UP OF THE FIRMWARE

To secure the connectivity with the new cellular phone etc. put on the market after this machine is put on the market, the upgrade in service is done.

Procedure:

1. The USB memory is prepared, and the firmware is downloaded to the USB memory. (The USB memory is a thing to prepare the one of about 64MB made of SONY POCKET BIT.)
2. Power supply of the set is turned off.
3. Press the [4] → [5] → [6] ([6] is pressed for two seconds) button of the set sequentially, and enter the service mode.
4. Wait for 1 minute after executing step 3, the set is connected with the USB memory with connected the USB cable (Part. No. J-2502-103-1) as shown in Fig.1.
5. Wait for 1 minute (time untill access LED of USB memory disappears) after executing step 4, push the joystick for two seconds of the set, and the version up confirmation screen is displayed.
6. Select "Yes" by using the UP/DOWN of joystick, and confirm the displayed version number, and push the joystick.
7. The version up is executed. When the version up ends, reset is automatically done, and usual screen of power off state is displayed.

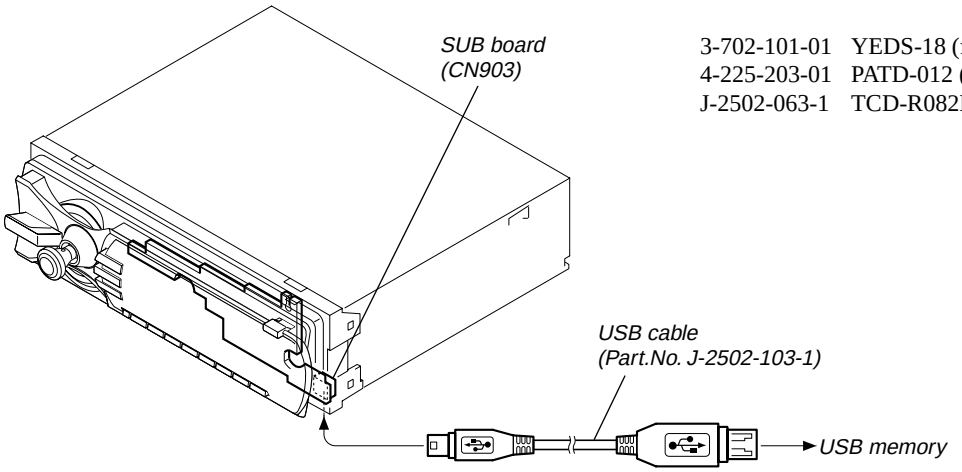


Fig.1 Method to connect the set with USB memory

FACTORY SHIPMENT MODE

Even if the set is reset, bluetooth system menu setting, connected registration equipment, and telephone book function, etc. recorded in tha flash memory are not initialized. It is necessary to execute factory shipment mode to initialize them.

Procedure:

1. Turn off the setting of the bluetooth signal, and power supply is turned off.
2. Press the [4] → [5] → [1] ([1] is pressed for two seconds) button of the set sequentially, and enter the test mode.
3. Press the [1] button for two seconds of the set, and the DAIG information is initialized.
4. Press the [6] button for two seconds of the set, and the bluetooth setting item preserved in NOR FLASH is initialized.
5. Press the [OFF] button of the set, and the test mode is made clear. At this time, the memory of the tuner is initialized.
6. The power supply code is removed and the power supply is turned off, and the power supply will be turned on again in one minute. At this time, the tuner preset, and EQ3 setting value, etc. are initialized.

RELEASING THE DISC SLOT LOCK

The disc slot lock function for the antitheft of an demonstration disc in the store is equipped.

Releasing Procedure :

1. Power supply is turned off.
2. Enter the Jog daial to the left, and enter the Jog daial to the right, and press the [1] → [2] ([2] is pressed for two seconds) button of the set sequentially, and disc slot is unlocked.

SECURITY

To lock the personal information in the following menus by setting a 4-digit password.
"Dialed Calls," "Received Calls," "Phonebook,"
"Preset Dial," "Receive PB"
If you set the security, "Security Locked" appears when the above menus are operated.
To unlock the security, select "Unlock" and input the password number.

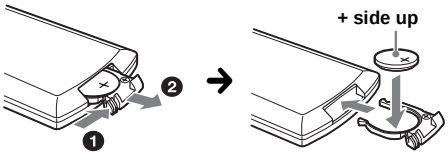
TEST DISCS

Use following TEST DISC whan this set confirms the operation and checks it.

3-702-101-01	YEDS-18 (for CD)
4-225-203-01	PATD-012 (for CD)
J-2502-063-1	TCD-R082LMT (for CD-R)

REPLACING THE LITHIUM BATTERY OF THE CARD REMOTE COMMANDER

Under normal conditions, the battery will last approximately 1 year.
(The service life may be shorter, depending on the conditions of use.)
When the battery becomes weak, the range of the card remote commander becomes shorter. Replace the battery with a new CR2025 lithium battery.
Use of any other battery may present a risk of fire or explosion.



Notes on the lithium battery

- *Keep the lithium battery out of the reach of children. Should the battery be swallowed, immediately consult a doctor.*
- *Wipe the battery with a dry cloth to assure a good contact.*
- *Be sure to observe the correct polarity when installing the battery.*
- *Do not hold the battery with metallic tweezers, otherwise a short-circuit may occur.*

WARNING
Battery may explode if mistreated.
Do not recharge, disassemble, or dispose of in fire.

SECTION 2
GENERAL

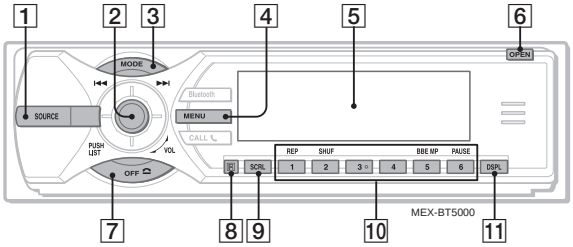
This section is extracted from instruction manual.

(US, Canadian)

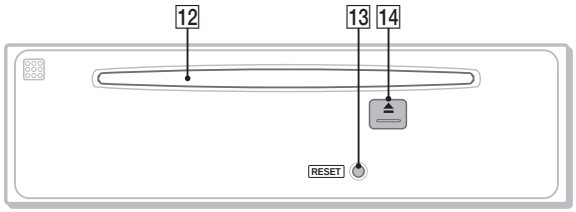
Location of controls and basic operations

Audio function

Main unit



Front panel removed



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 SOURCE button
To power on; change the source (Radio/CD/MD*1/Bluetooth AUDIO/AUX/SAT*2).

2 Joystick/LIST button
Rotate to: Adjust the volume.
Push up/down/left/right to: Select a menu item.
Press to: Apply a setting.
CD/MD*1:
Push up/down to*3:
– Skip groups*4/albums*5 (push).
– Skip groups*4/albums*5 continuously (push and hold).
Push left/right to:
– Skip tracks (push).
– Skip tracks continuously (push, then push again within about 2 seconds and hold).
– Reverse/fast-forward a track (push and hold).
Radio:
Push up/down to:
– Receive stored station.
Push left/right to:
– Tune in stations automatically (push).
– Find a station manually (push and hold).
Press to:
– Display the list.
– Display the category list*2.

3 MODE button
To select the radio band (FM/AM)/select the SAT tuner band (mode)*2/select the unit*6.

4 MENU button
To enter menu.

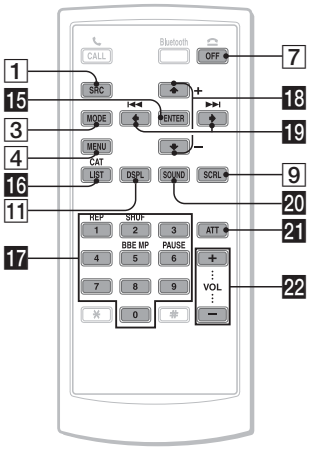
5 Display window

6 OPEN button

7 OFF button
To power off; stop the source.

8 Receptor for the card remote commander

Card remote commander RM-X301



9 SCRL (scroll) button
To scroll the display item.

10 Number buttons
CD/MD*1:
①: **REP**
②: **SHUF**
⑤: **BBE MP***7
To activate the BBE MP function, set "BBE MP on." To cancel, set "BBE MP off."
⑥: **PAUSE***7
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

11 DSPL (display) button
To change display items.

12 Disc slot
To insert the disc.

13 RESET button

14 ⏏ (eject) button
To eject the disc.

The following buttons on the card remote commander have also different buttons/functions from the unit.

15 ENTER button
To apply a setting.

16 LIST/CAT*2 button
To list up.

17 Number buttons
Buttons 1 to 6 share the same functions as the number buttons on the unit.

18 ↑ (+)/↓ (–) buttons
The same as pushing the joystick up/down.

19 ← (I◄◄)/→ (►►I) buttons
The same as pushing the joystick left/right.

20 SOUND button
To select sound items.

21 ATT (attenuate) button
To attenuate the sound. To cancel, press again.

22 VOL (volume) +/– buttons
To adjust volume.

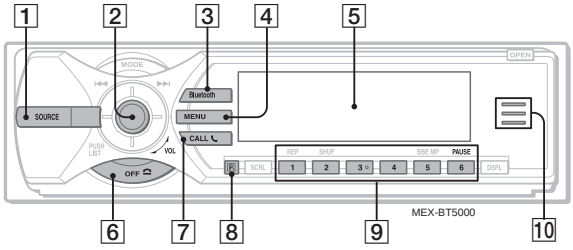
*1 *When an MD changer is connected.*
*2 *When the SAT tuner is connected.*
*3 *If the changer is connected, the operation is different.*
*4 *When an ATRAC CD is played.*
*5 *When an MP3/WMA is played.*
*6 *When a CD/MD changer is connected.*
*7 *When playing back on this unit.*

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

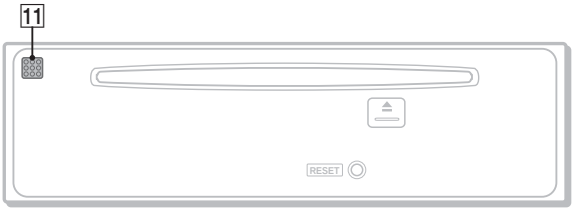
Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander".

Bluetooth function

Main unit



Front panel removed



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 **SOURCE button**
To power on; change the source (Radio/CD/MD*1/Bluetooth AUDIO/AUX/SAT*2).

2 **Joystick**
Rotate to: Adjust the volume.
Push up/down/left/right to: Select a menu item.
Press to: Apply a setting.
Bluetooth audio device*3:
Push left/right to:
– Skip tracks (push).
– Reverse/fast-forward a track (push and hold).

3 **Bluetooth button**
To access the Bluetooth functions; receive a call.

4 **MENU button**
To enter menu; receive a call.

5 **Display window**

6 **OFF button**
To power off; stop the source; end or reject a call.

7 **CALL button**
To access the telephone functions; receive a call.

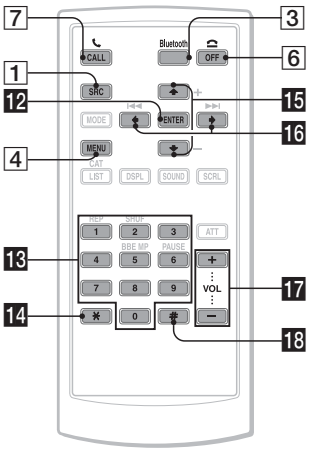
8 **Receptor for the card remote commander**

9 **Number buttons**
To call stored dials.
Bluetooth audio device*3:
(6): **PAUSE**
To pause playback.

10 **Bluetooth indicator**
Lights up when the Bluetooth signal is input/output. Goes off when the Bluetooth signal is off.

11 **Microphone**

Card remote commander RM-X301



The following buttons on the card remote commander have also different buttons/functions from the unit.

12 **ENTER button**
To apply a setting.

13 **Number buttons**
To input numbers (phone number, passcode, etc.).
Buttons 1 to 6 share the same functions as the number buttons on the unit.

14 **∗ button**

15 **↑ (+)/↓ (–) buttons**
The same as pushing the joystick up/down.

16 **← (I◄◄)/→ (►►I) buttons**
The same as pushing the joystick left/right.

17 **VOL (volume) +/– buttons**
To adjust volume.

18 **# button**

*1 *When an MD changer is connected.*
*2 *When the SAT tuner is connected.*
*3 *When a Bluetooth audio device (supports AVRCP of Bluetooth technology) is connected. Depending on the device, certain operations may not be available.*

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

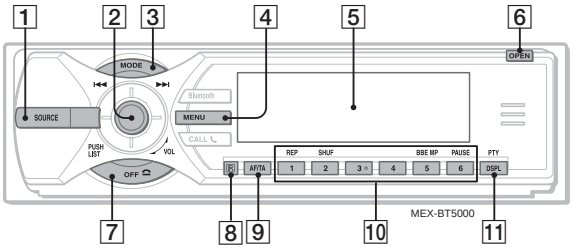
Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander".

(AEP, UK)

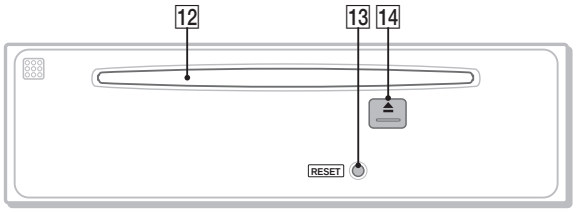
Location of controls and basic operations

Audio function

Main unit



Front panel removed



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 SOURCE button
To power on; change the source (Radio/CD/MD*1/Bluetooth AUDIO/AUX).

2 Joystick/LIST button
Rotate to: Adjust the volume.
Push up/down/left/right to: Select a menu item.
Press to: Apply a setting.
CD/MD*1:
Push up/down to*2:
– Skip groups*3/albums*4 (push).
– Skip groups*3/albums*4 continuously (push and hold).
Push left/right to:
– Skip tracks (push).
– Skip tracks continuously (push, then push again within about 2 seconds and hold).
– Reverse/fast-forward a track (push and hold).
Radio:
Push up/down to:
– Receive stored station.
Push left/right to:
– Tune in stations automatically (push).
– Find a station manually (push and hold).
Press to:
– Display the list.

3 MODE button
To select the radio band (FM/MW/LW)/select the unit*5.

4 MENU button
To enter menu.

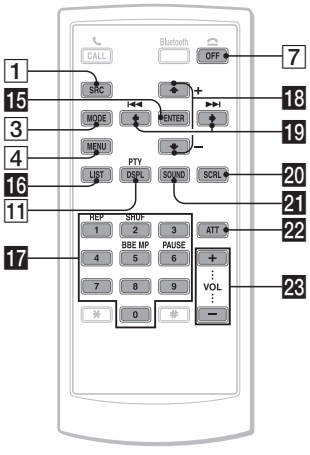
5 Display window

6 OPEN button

OFF button
To power off; stop the source.

8 Receptor for the card remote commander

Card remote commander RM-X302



9 AF (Alternative Frequencies)/TA (Traffic Announcement) button
To set AF and TA in RDS.

10 Number buttons
CD/MD*1:
(1): **REP**
(2): **SHUF**
(5): **BBE MP***6
To activate the BBE MP function, set "BBE MP on." To cancel, set "BBE MP off."
(6): **PAUSE***6
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

11 DSPL (display)/PTY (Programme Type) button
To change display items; select PTY in RDS.

12 Disc slot
To insert the disc.

13 RESET button

14 ⏏ (eject) button
To eject the disc.
The following buttons on the card remote commander have also different buttons/functions from the unit.

15 ENTER button
To apply a setting.

16 LIST button
To list up.

17 Number buttons
Buttons 1 to 6 share the same functions as the number buttons on the unit.

18 ↑ (+)/↓ (–) buttons
The same as pushing the joystick up/down.

19 ← (I◄◄)/→ (►►I) buttons
The same as pushing the joystick left/right.

20 SCRL (scroll) button
To scroll display item.

21 SOUND button
To select sound items.

22 ATT (attenuate) button
To attenuate the sound. To cancel, press again.

23 VOL (volume) +/– buttons
To adjust volume.

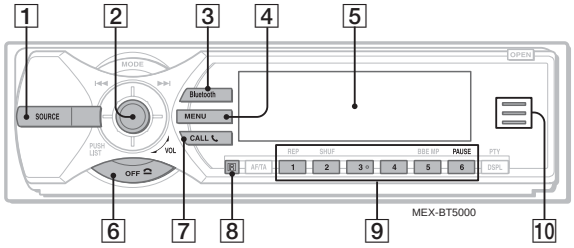
*1 *When an MD changer is connected.*
*2 *If the changer is connected, the operation is different.*
*3 *When an ATRAC CD is played.*
*4 *When an MP3/WMA is played.*
*5 *When a CD/MD changer is connected.*
*6 *When playing back on this unit.*

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

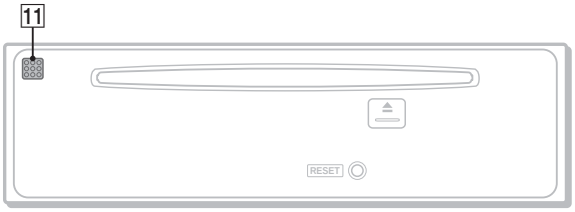
Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander".

Bluetooth function

Main unit



Front panel removed



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 **SOURCE button**
To power on; change the source (Radio/CD/MD*1/Bluetooth AUDIO/AUX).

2 **Joystick**
Rotate to: Adjust the volume.
Push up/down/left/right to: Select a menu item.
Press to: Apply a setting.
Bluetooth audio device*2:
Push left/right to:
– Skip tracks (push).
– Reverse/fast-forward a track (push and hold).

3 **Bluetooth button**
To access the Bluetooth functions; receive a call.

4 **MENU button**
To enter menu; receive a call.

5 **Display window**

6 **OFF button**
To power off; stop the source; end or reject a call.

7 **CALL button**
To access the telephone functions; receive a call.

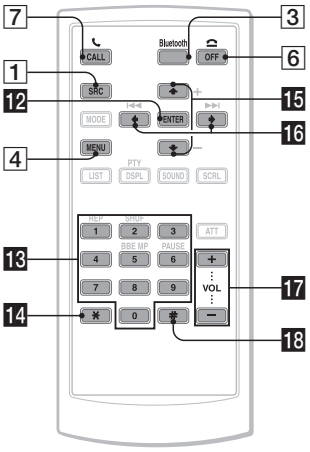
8 **Receptor for the card remote commander**

9 **Number buttons**
To call stored dials.
Bluetooth audio device*2:
(6): **PAUSE**
To pause playback.

10 **Bluetooth indicator**
Lights up when the Bluetooth signal is input/output. Goes off when the Bluetooth signal is off.

11 **Microphone**

Card remote commander RM-X302



The following buttons on the card remote commander have also different buttons/functions from the unit.

12 **ENTER button**
To apply a setting.

13 **Number buttons**
To input numbers (phone number, passcode, etc.).
Buttons 1 to 6 share the same functions as the number buttons on the unit.

14 **∗ button**

15 **↑ (+)/↓ (–) buttons**
The same as pushing the joystick up/down.

16 **← (I◄◄)/→ (►►I) buttons**
The same as pushing the joystick left/right.

17 **VOL (volume) +/– buttons**
To adjust volume.

18 **# button**

*1 *When an MD changer is connected.*
*2 *When a Bluetooth audio device (supports AVRCP of Bluetooth technology) is connected. Depending on the device, certain operations may not be available.*

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

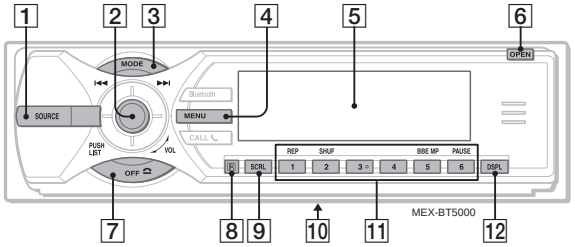
Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander".

(E)

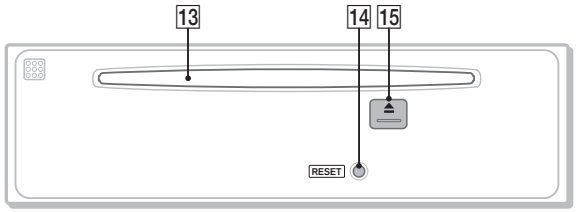
Location of controls and basic operations

Audio function

Main unit



Front panel removed



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 SOURCE button
To power on; change the source (Radio/CD/MD*1/Bluetooth AUDIO/AUX).

2 Joystick/LIST button
Rotate to: Adjust the volume.
Push up/down/left/right to: Select a menu item.
Press to: Apply a setting.
CD/MD*1:
Push up/down to*2:
– Skip groups*3/albums*4 (push).
– Skip groups*3/albums*4 continuously (push and hold).
Push left/right to:
– Skip tracks (push).
– Skip tracks continuously (push, then push again within about 2 seconds and hold).
– Reverse/fast-forward a track (push and hold).

Radio:
Push up/down to:
– Receive stored station.
Push left/right to:
– Tune in stations automatically (push).
– Find a station manually (push and hold).
Press to:
– Display the list.

3 MODE button
To select the radio band (FM/AM)/select the unit*5.

4 MENU button
To enter menu.

5 Display window

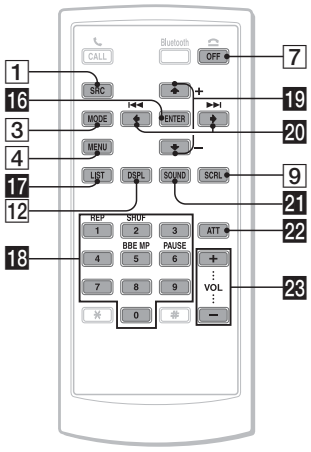
6 OPEN button

7 OFF button
To power off; stop the source.

8 Receptor for the card remote commander

9 SCRL (scroll) button
To scroll display item.

Card remote commander RM-X303



10 Frequency select switch (located on the bottom of the unit)
See "Frequency select switch" in the supplied installation/connections manual.

11 Number buttons
CD/MD*1:
(1): **REP**
(2): **SHUF**
(5): **BBE MP***6
To activate the BBE MP function, set "BBE MP on." To cancel, set "BBE MP off."
(6): **PAUSE***6
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

12 DSPL (display) button
To change display items.

13 Disc slot
To insert the disc.

14 RESET button

15 ⏏ (eject) button
To eject the disc.

The following buttons on the card remote commander have also different buttons/functions from the unit.

16 ENTER button
To apply a setting.

17 LIST button
To list up.

18 Number buttons
Buttons 1 to 6 share the same functions as the number buttons on the unit.

19 ↑ (+)/↓ (–) buttons
The same as pushing the joystick up/down.

20 ← (I◄◄)/→ (►►I) buttons
The same as pushing the joystick left/right.

21 SOUND button
To select sound items.

22 ATT (attenuate) button
To attenuate the sound. To cancel, press again.

23 VOL (volume) +/– buttons
To adjust volume.

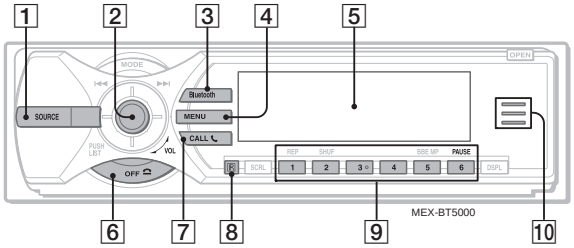
*1 *When an MD changer is connected.*
*2 *If the changer is connected, the operation is different.*
*3 *When an ATRAC CD is played.*
*4 *When an MP3/WMA is played.*
*5 *When a CD/MD changer is connected.*
*6 *When playing back on this unit.*

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on ithe unit is pressed, or a disc is nserted to activate the unit first.

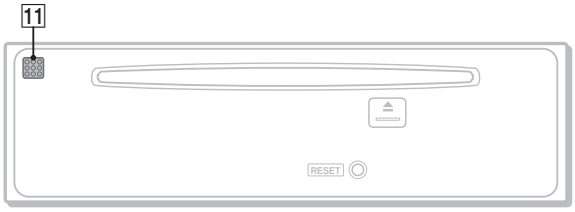
Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander".

Bluetooth function

Main unit



Front panel removed



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 **SOURCE button**
To power on; change the source (Radio/CD/MD*1/Bluetooth AUDIO/AUX).

2 **Joystick**
Rotate to: Adjust the volume.
Push up/down/left/right to: Select a menu item.
Press to: Apply a setting.
Bluetooth audio device*2:
Push left/right to:
– Skip tracks (push).
– Reverse/fast-forward a track (push and hold).

3 **Bluetooth button**
To access the Bluetooth functions; receive a call.

4 **MENU button**
To enter menu; receive a call.

5 **Display window**

6 **OFF button**
To power off; stop the source; end or reject a call.

7 **CALL button**
To access the telephone functions; receive a call.

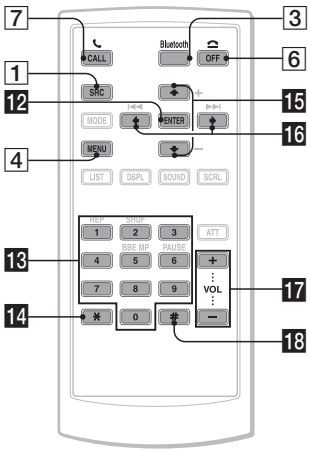
8 **Receptor for the card remote commander**

9 **Number buttons**
To call stored dials.
Bluetooth audio device*2:
(6): **PAUSE**
To pause playback.

10 **Bluetooth indicator**
Lights up when the Bluetooth signal is input/output. Goes off when the Bluetooth signal is off.

11 **Microphone**

Card remote commander RM-X303



The following buttons on the card remote commander have also different buttons/functions from the unit.

12 **ENTER button**
To apply a setting.

13 **Number buttons**
To input numbers (phone number, passcode, etc.).
Buttons 1 to 6 share the same functions as the number buttons on the unit.

14 **∗ button**

15 **↑ (+)/↓ (–) buttons**
The same as pushing the joystick up/down.

16 **← (I◄◄)/→ (►►I) buttons**
The same as pushing the joystick left/right.

17 **VOL (volume) +/– buttons**
To adjust volume.

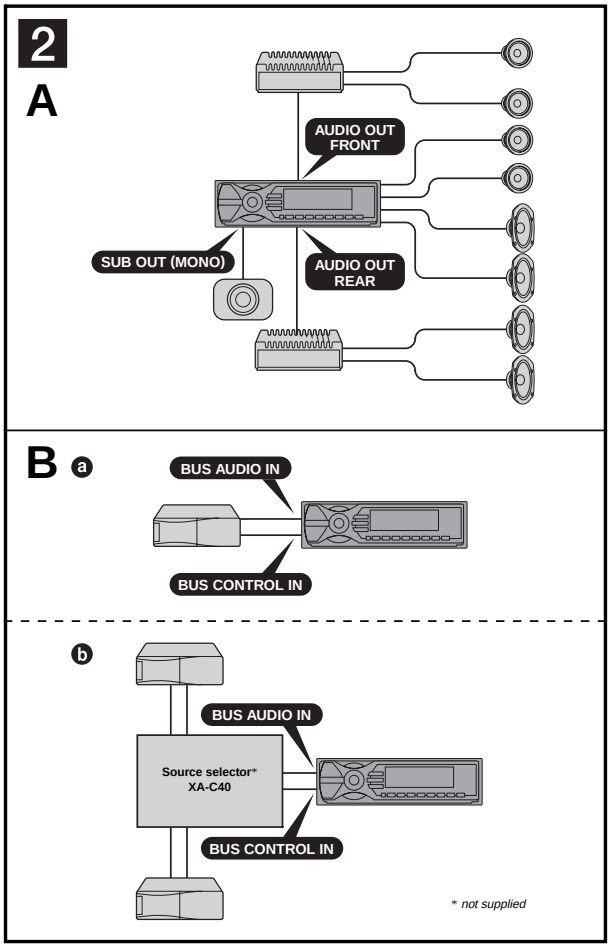
18 **# button**

*1 *When an MD changer is connected.*
*2 *When a Bluetooth audio device (supports AVRCP of Bluetooth technology) is connected. Depending on the device, certain operations may not be available.*

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander".

(US, Canadian, E)



Cautions

Be sure to install this unit in the dashboard of the car as the rear side of the unit becomes hot during use.

- This unit is designed for negative ground 12 V DC operation only.
- Do not get the leads under a screw, or caught in moving parts (e.g. seat railing).
- Before making connections, turn the car ignition off to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- **Run all ground leads to a common ground point.**
- Be sure to insulate any loose unconnected leads with electrical tape for safety.
- Do not cover the ventilation slots or heat sinks of the unit.
- The use of optical instruments with this product will increase eye hazard.

Notes on the power supply lead (yellow)

- When connecting this unit in combination with other stereo components, the connected car circuit's rating must be higher than the sum of each component's fuse.
- When no car circuits are rated high enough, connect the unit directly to the battery.

Connection example 2

Notes **(2-A)**
Be sure to connect the ground lead before connecting the amplifier.
The alarm will only sound if the built-in amplifier is used.

Tip **(2-B-b)**
For connecting two or more CD/MD changers, the source selector XA-C40 (not supplied) is necessary.

Connection diagram 3

❶ **To a metal surface of the car**
First connect the black ground lead, then connect the orange/white striped, yellow, and red power input leads.

❷ **To the power antenna control lead or power supply lead of antenna booster amplifier**
Notes
- *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the interface cable of a car telephone**

❺ **To a car's illumination signal**
Be sure to connect the black ground lead to a metal surface of the car first.

❻ **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black ground lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

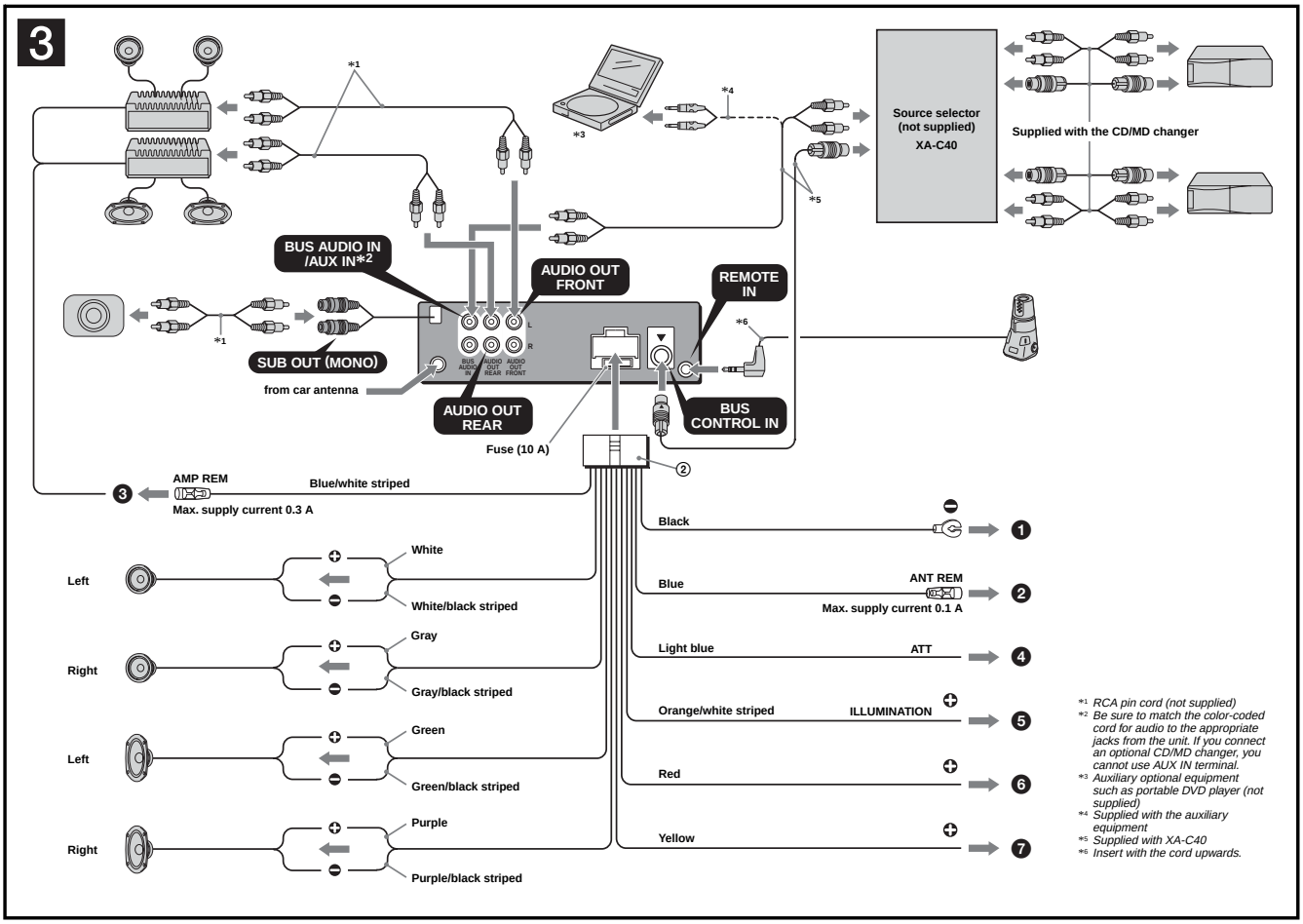
❼ **To the +12 V power terminal which is energized at all times**
Be sure to connect the black ground lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without a relay box cannot be used with this unit.*

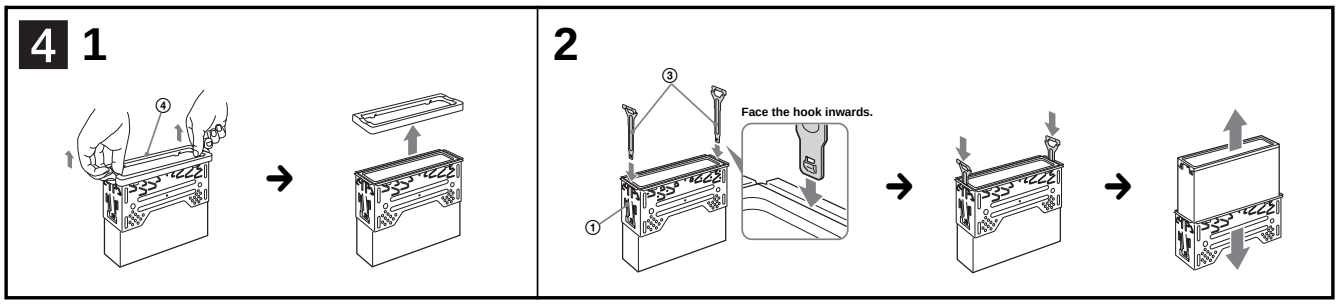
Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

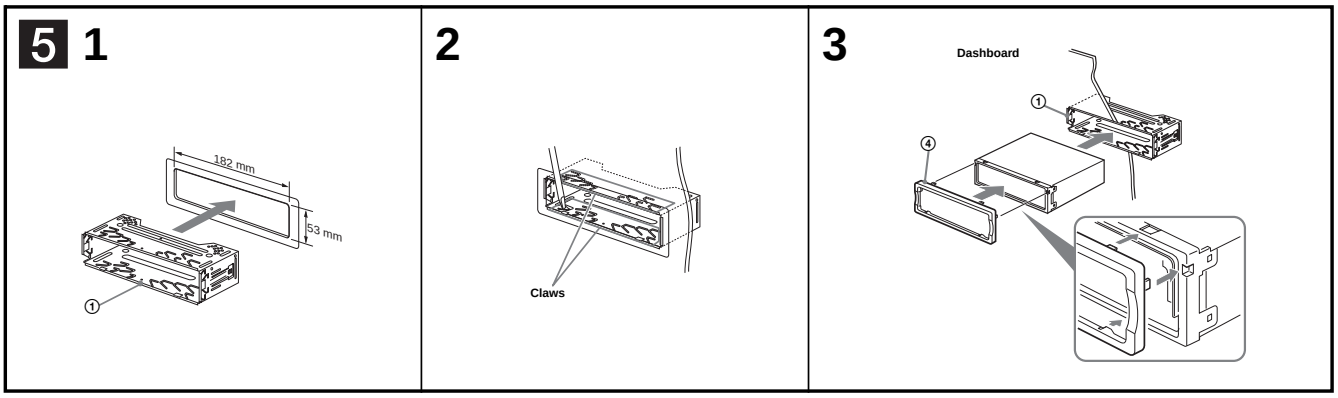
Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

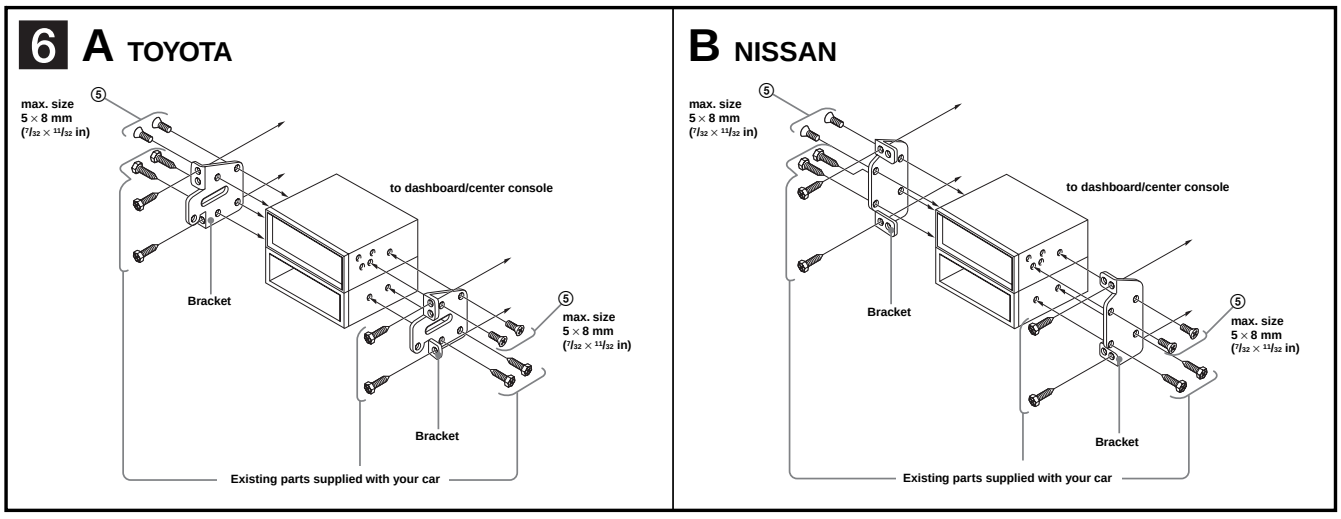
Note on connection
If speaker and amplifier are not connected correctly, "Failure" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

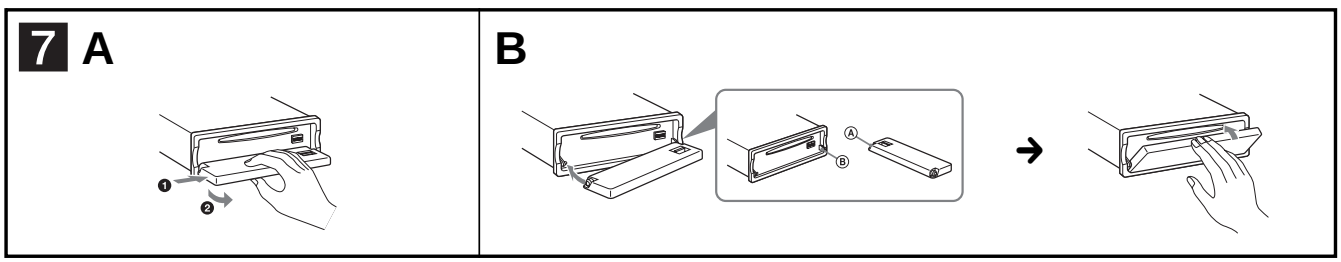


*1 *RCA pin cord (not supplied)*
*2 *Be sure to match the color-coded cord for audio to the appropriate jacks from the unit. If you connect an optional CD/MD changer, you cannot use AUX IN terminal.*
*3 *Auxiliary optional equipment such as portable DVD player (not supplied)*
*4 *Supplied with the auxiliary equipment*
*5 *Supplied with XA-C40*
*6 *Insert with the cord upwards.*









Precautions

Choose the installation location carefully so that the unit will not interfere with normal driving operations. Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperatures, such as in direct sunlight or near heater ducts.
Use only the supplied mounting hardware for a safe and secure installation.

Mounting angle adjustment

Adjust the mounting angle to less than 45°.

Removing the protection collar and the bracket 4

Before installing the unit, remove the protection collar ④ and the bracket ① from the unit.

1 Remove the protection collar ④.
Pinch both edges of the protection collar ④, then pull it out.

2 Remove the bracket ①.
❶ Insert both release keys ③ together between the unit and the bracket ① until they click.
❷ Pull down the bracket ①, then pull up the unit to separate.

Mounting example 5

Installation in the dashboard

Notes
Bend these claws outward for a tight fit, if necessary (5-2).
Make sure that the 4 catches on the protection collar ④ are properly engaged in the slots of the unit (5-3).

Mounting the unit in a Japanese car 6

You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your Sony dealer.

Note
To prevent malfunction, install only with the supplied screws ⑤.

How to detach and attach the front panel 7

Before installing the unit, detach the front panel.

7-A To detach

Before detaching the front panel, be sure to press (OFF). Press (OPEN), then slide the front panel to the right, and gently pull out the left end of the front panel.

7-B To attach

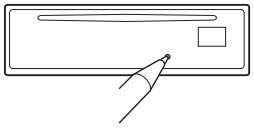
Place the hole Ⓐ of the front panel onto the spindle Ⓑ on the unit, then lightly push the left side in.

Warning if your car's ignition has no ACC position

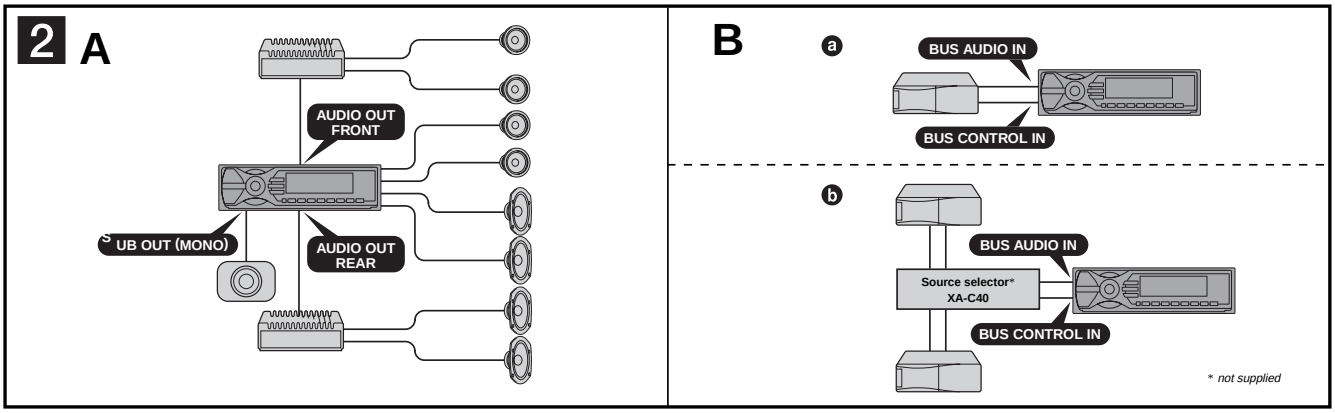
After turning the ignition off, be sure to press and hold (OFF) on the unit until the display disappears.
Otherwise, the display does not turn off and this causes battery drain.

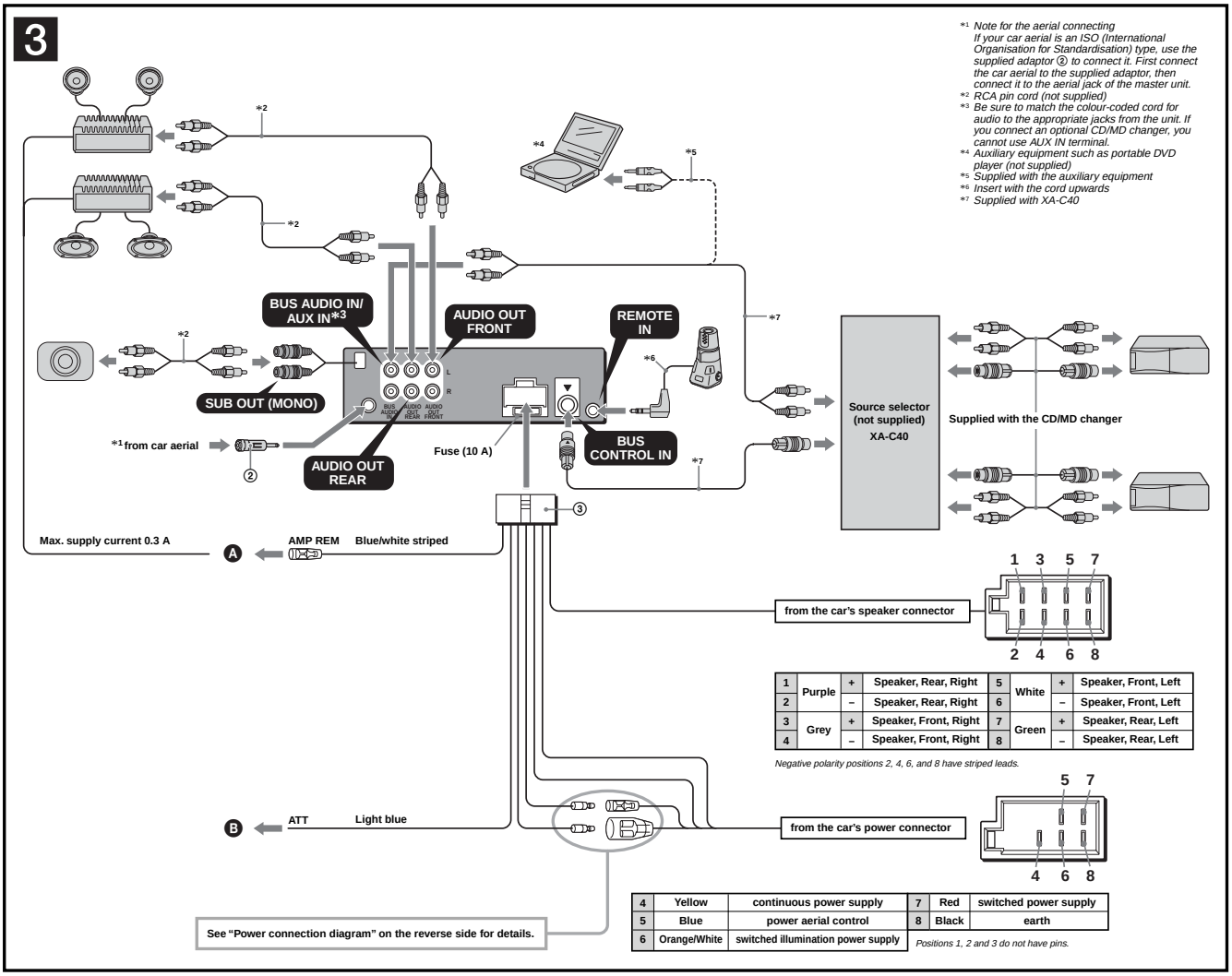
RESET button

When the installation and connections are completed, be sure to press the RESET button with a ball-point pen, etc., after detaching the front panel.



(AEP, UK)




3
*1 Note for the aerial connecting
If your car aerial is an ISO (International Organisation for Standardisation) type, use the supplied adaptor ② to connect it. First connect the car aerial to the supplied adaptor, then connect it to the aerial jack of the master unit.
*2 RCA pin cord (not supplied)
*3 Be sure to match the colour-coded cord for audio to the appropriate jacks from the unit. If you connect an optional CD/MD changer, you cannot use AUX IN terminal.
*4 Auxiliary equipment such as portable DVD player (not supplied)
*5 Supplied with the auxiliary equipment
*6 Insert with the cord upwards
*7 Supplied with XA-C40
BUS AUDIO IN/ AUX IN*3
AUDIO OUT FRONT
REMOTE IN
SUB OUT (MONO)
*1 from car aerial
AUDIO OUT REAR
Fuse (10 A)
BUS CONTROL IN
Source selector (not supplied)
XA-C40
Supplied with the CD/MD changer
Max. supply current 0.3 A
A
AMP REM
Blue/white striped
from the car's speaker connector
1 3 5 7
2 4 6 8
1 Purple + Speaker, Rear, Right
2 – Speaker, Rear, Right
3 Grey + Speaker, Front, Right
4 – Speaker, Front, Right
5 White + Speaker, Front, Left
6 – Speaker, Front, Left
7 Green + Speaker, Rear, Left
8 – Speaker, Rear, Left
Negative polarity positions 2, 4, 6, and 8 have striped leads.
B
ATT
Light blue
from the car's power connector
5 7
4 6 8
4 Yellow continuous power supply
5 Blue power aerial control
6 Orange/White switched illumination power supply
7 Red switched power supply
8 Black earth
Positions 1, 2 and 3 do not have pins.
See "Power connection diagram" on the reverse side for details.

Cautions

Be sure to install this unit in the dashboard of the car as the rear side of the unit becomes hot during use.

- This unit is designed for negative earth 12 V DC operation only.
- Do not get the leads under a screw, or caught in moving parts (e.g. seat railing).
- Before making connections, turn the car ignition off to avoid short circuits.
- Connect the power connecting lead ③ to the unit and speakers before connecting it to the auxiliary power connector.
- **Run all earth leads to a common earth point.**
- Be sure to insulate any loose unconnected leads with electrical tape for safety.
- Do not cover the ventilation slots or heat sinks of the unit.

Notes on the power supply lead (yellow)

- When connecting this unit in combination with other stereo components, the connected car circuit's rating must be higher than the sum of each component's fuse.
- When no car circuits are rated high enough, connect the unit directly to the battery.

Connection example 2

***Notes* (2-A)**

- *Be sure to connect the earth lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

***Tip* (2-B-b)**

For connecting two or more CD/MD changers, the source selector XA-C40 (not supplied) is necessary.

Connection diagram 3

A To AMP REMOTE IN of an optional power amplifier

This connection is only for amplifiers. Connecting any other system may damage the unit.

B To the interface cable of a car telephone

Warning

If you have a power aerial without a relay box, connecting this unit with the supplied power connecting lead ③ may damage the aerial.

Notes on the control power and suppy leads

- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner, or when you activate the AF (Alternative Frequency) or TA (Traffic Announcement) function.*
- *When your car has built-in FM/MW/LW aerial in the rear/side glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without a relay box cannot be used with this unit.*

Memory hold connection

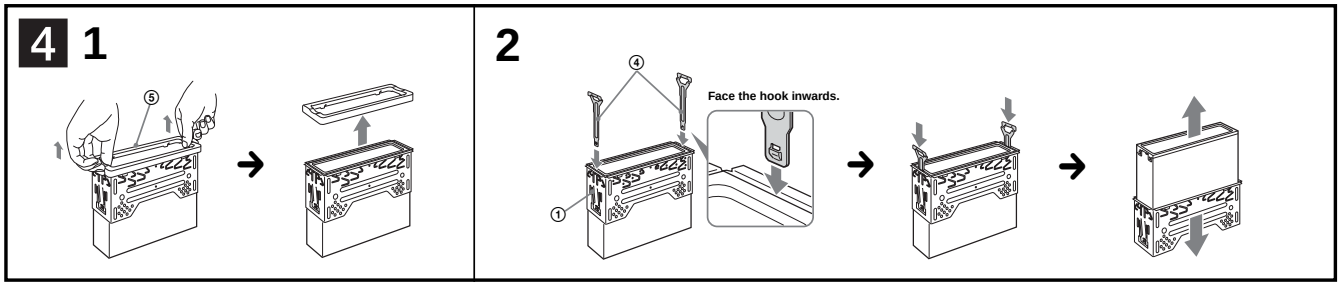
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

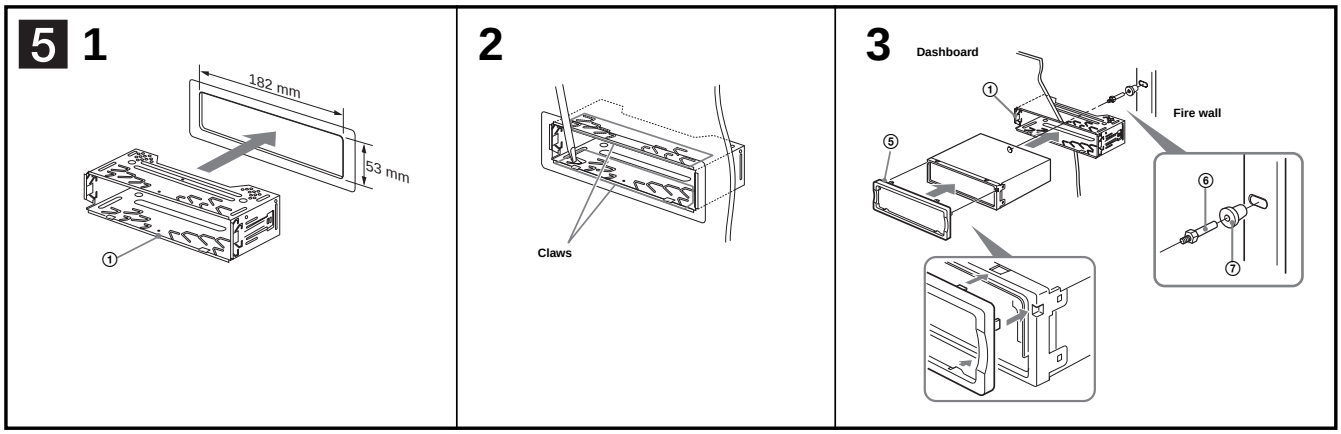
Notes on speaker connection

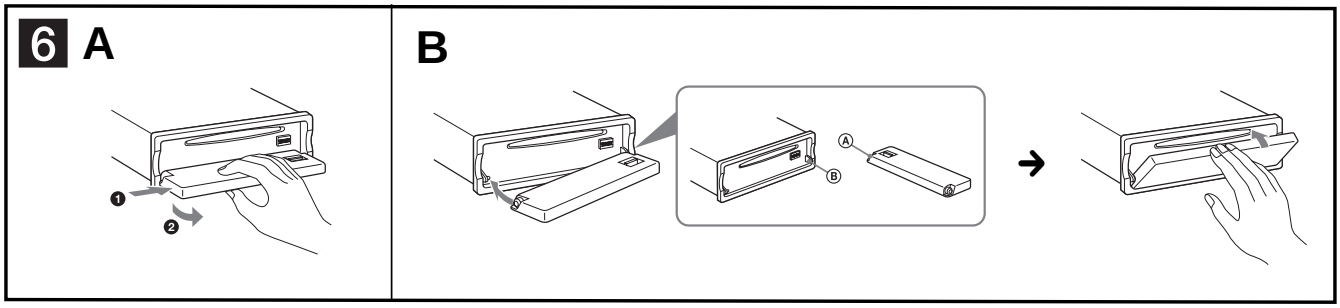
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the earth lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifi ers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection

If speaker and amplifi er are not connected correctly, "Failure" appears in the display. In this case, make sure the speaker and amplifi er are connected correctly.







Precautions

- Choose the installation location carefully so that the unit will not interfere with normal driving operations.
- Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperature, such as in direct sunlight or near heater ducts.
- Use only the supplied mounting hardware for a safe and secure installation.

Mounting angle adjustment

Adjust the mounting angle to less than 45°.

Removing the protection collar and the bracket 4

Before installing the unit, remove the protection collar ⑤ and the bracket ① from the unit.

1 **Remove the protection collar ⑤.**
Pinch both edges of the protection collar ⑤, then pull it out.

2 **Remove the bracket ①.**
❶ Insert both release keys ④ together between the unit and the bracket ① until they click.
❷ Pull down the bracket ①, then pull up the unit to separate.

Mounting example 5

Installation in the dashboard

Notes
- *Bend these claws outward for a tight fit, if necessary (5-2).*
- *Make sure that the 4 catches on the protection collar ⑤ are properly engaged in the slots of the unit (5-3).*

How to detach and attach the front panel 6

Before installing the unit, detach the front panel.

6-A To detach

Before detaching the front panel, be sure to press (OFF). Press (OPEN), then slide the front panel to the right side, and pull out the left side.

6-B To attach

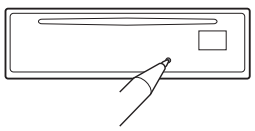
Place the hole Ⓐ in the front panel onto the spindle Ⓑ on the unit, as illustrated, then push the left side in.

Warning if your carís ignition has no ACC position

After turning the ignition off, be sure to press and hold (OFF) on the unit until the display disappears.
Otherwise, the display does not turn off and this causes battery drain.

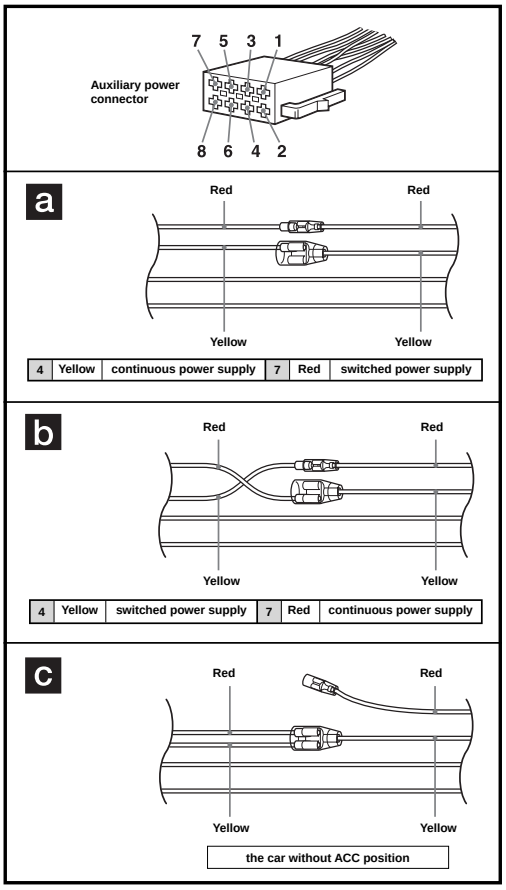
RESET button

When the installation and connections are completed, be sure to press the RESET button with a ballpoint pen, etc., after detaching the front panel.



Power connection diagram

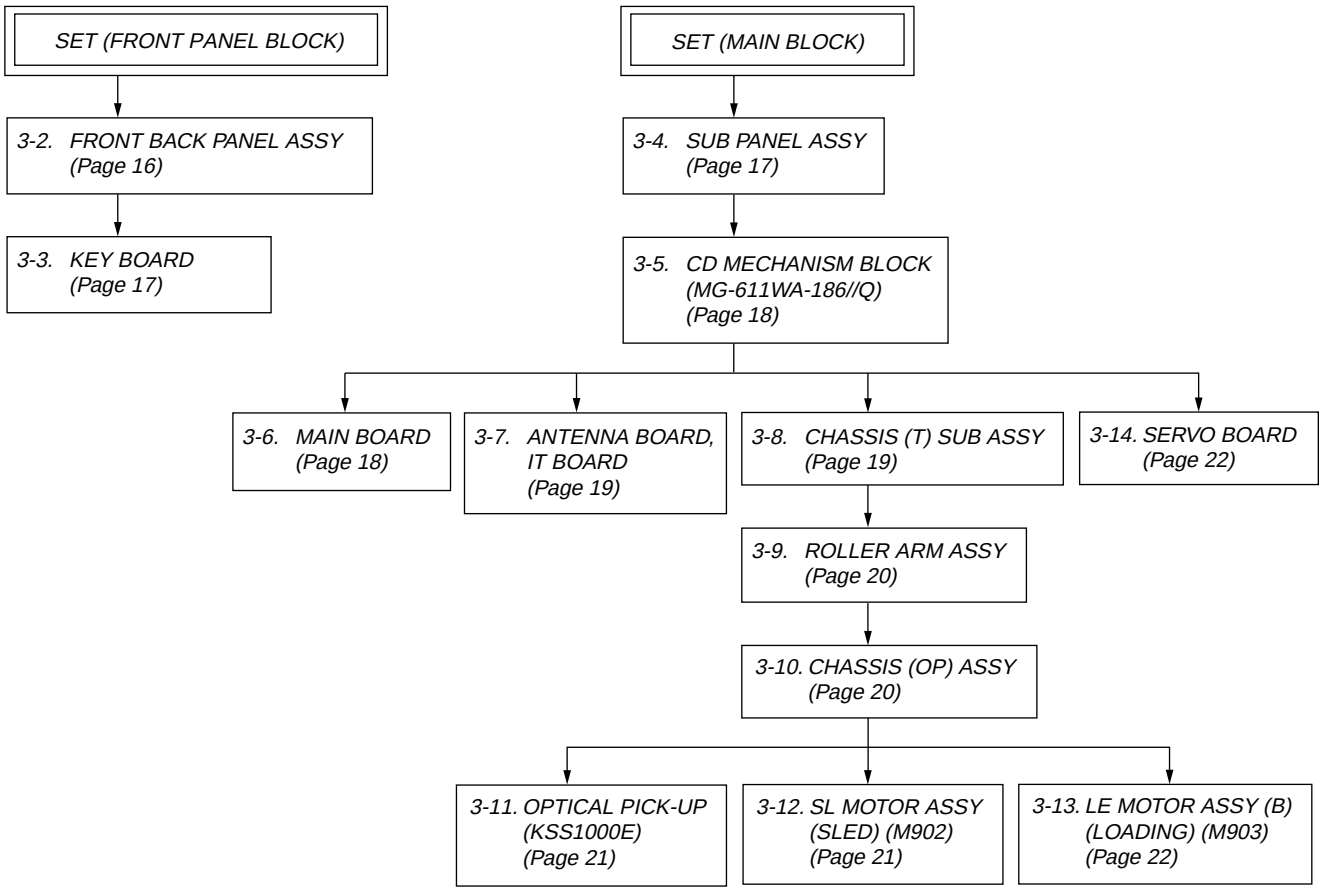
Auxiliary power connector may vary depending on the car. Check your carís auxiliary power connector diagram to make sure the connections match correctly. There are three basic types (illustrated below). You may need to switch the positions of the red and yellow leads in the car stereoís power connecting lead.
After matching the connections and switched power supply leads correctly, connect the unit to the carís power supply. If you have any questions and problems connecting your unit that are not covered in this manual, please consult the car dealer.



SECTION 3
DISASSEMBLY

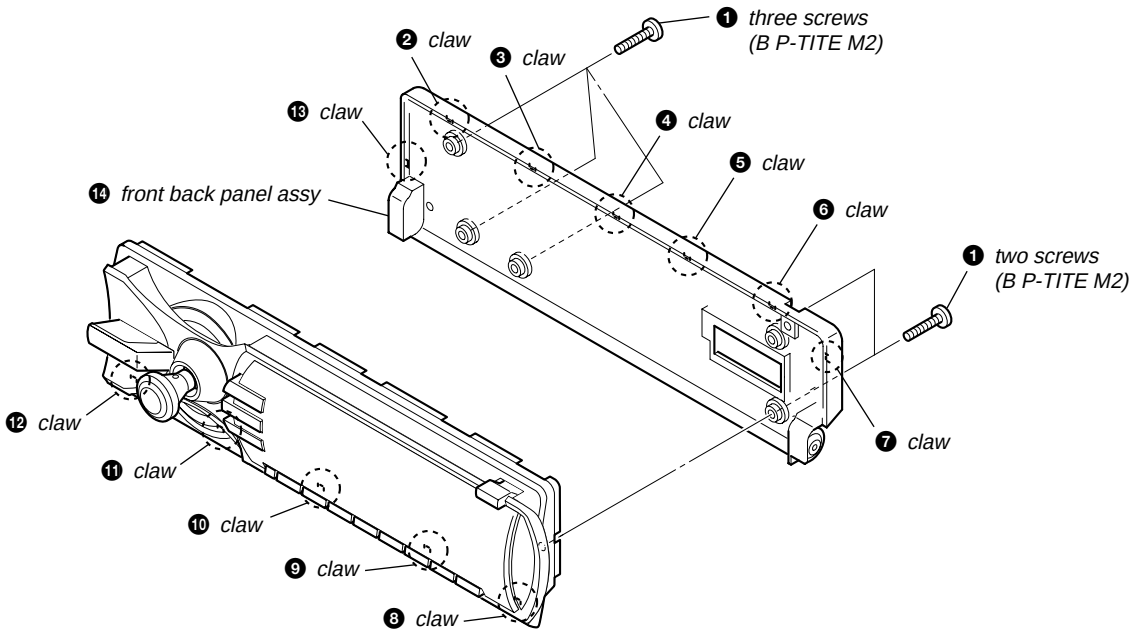
- This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

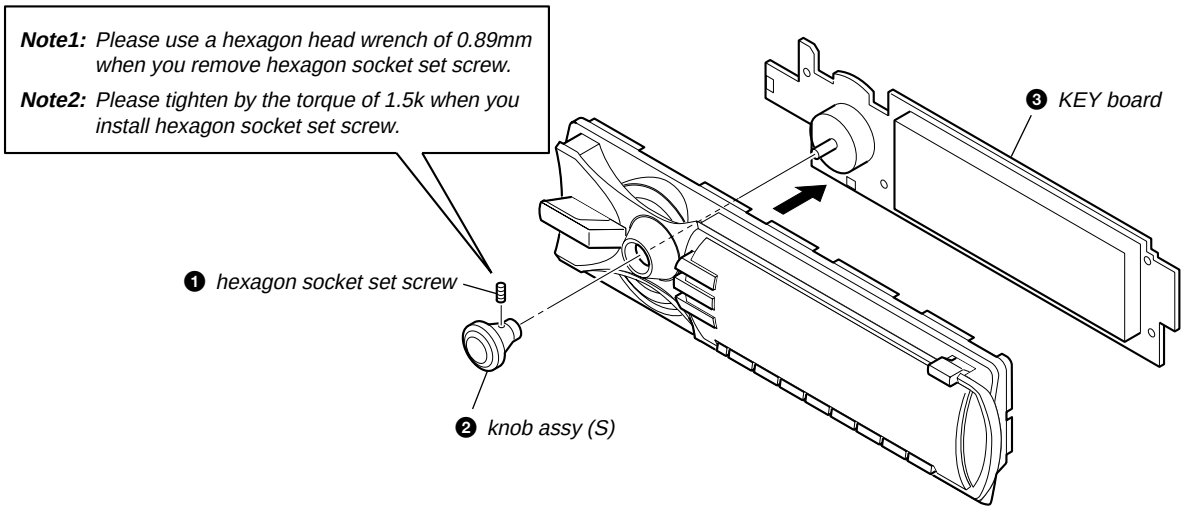

SET (FRONT PANEL BLOCK)
3-2. FRONT BACK PANEL ASSY (Page 16)
3-3. KEY BOARD (Page 17)
SET (MAIN BLOCK)
3-4. SUB PANEL ASSY (Page 17)
3-5. CD MECHANISM BLOCK (MG-611WA-186//Q) (Page 18)
3-6. MAIN BOARD (Page 18)
3-7. ANTENNA BOARD, IT BOARD (Page 19)
3-8. CHASSIS (T) SUB ASSY (Page 19)
3-14. SERVO BOARD (Page 22)
3-9. ROLLER ARM ASSY (Page 20)
3-10. CHASSIS (OP) ASSY (Page 20)
3-11. OPTICAL PICK-UP (KSS1000E) (Page 21)
3-12. SL MOTOR ASSY (SLED) (M902) (Page 21)
3-13. LE MOTOR ASSY (B) (LOADING) (M903) (Page 22)

Note: Follow the disassembly procedure in the numerical order given.

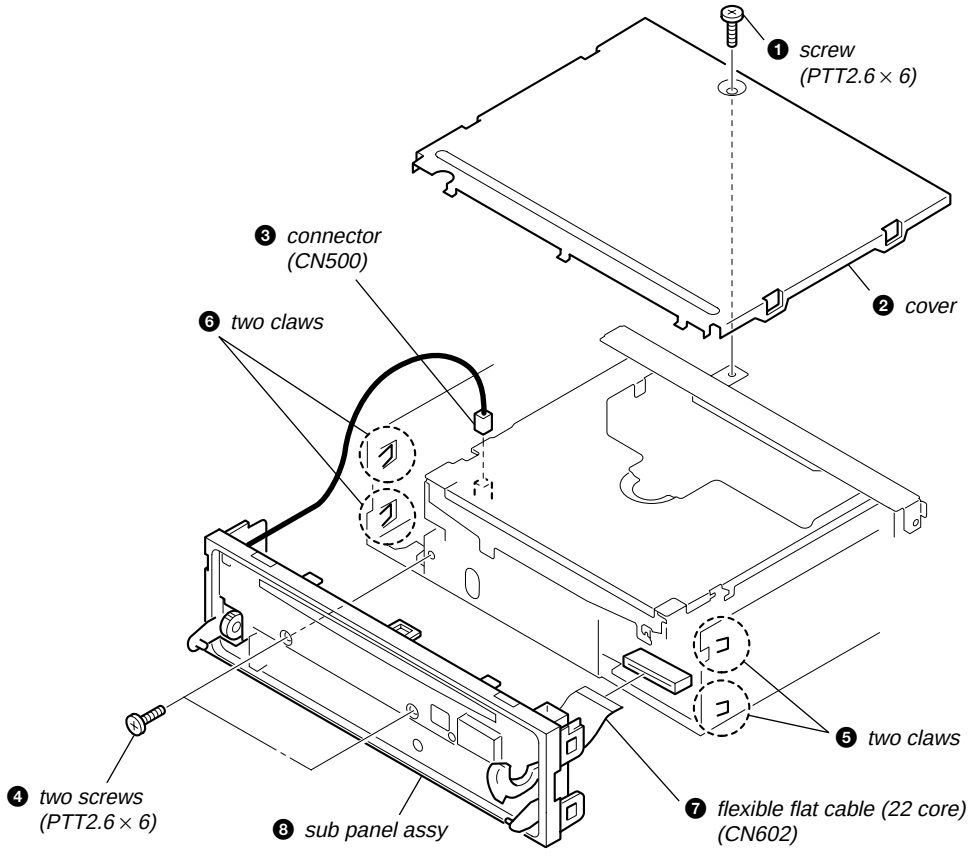
3-2. FRONT BACK PANEL ASSY



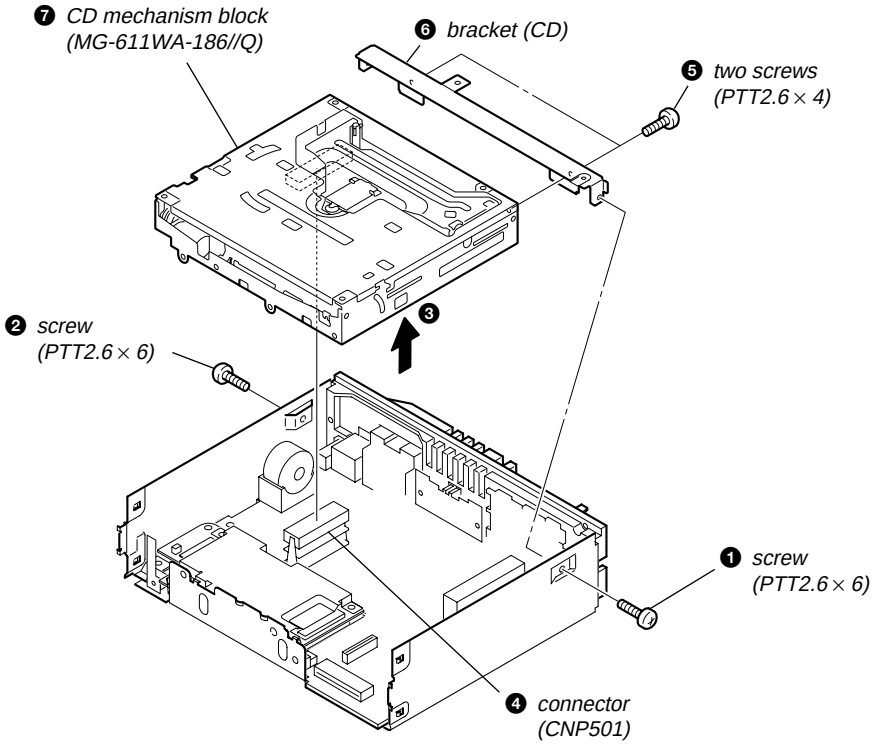
3-3. KEY BOARD


Note1: Please use a hexagon head wrench of 0.89mm when you remove hexagon socket set screw.
Note2: Please tighten by the torque of 1.5k when you install hexagon socket set screw.
❸ KEY board
❶ hexagon socket set screw
❷ knob assy (S)

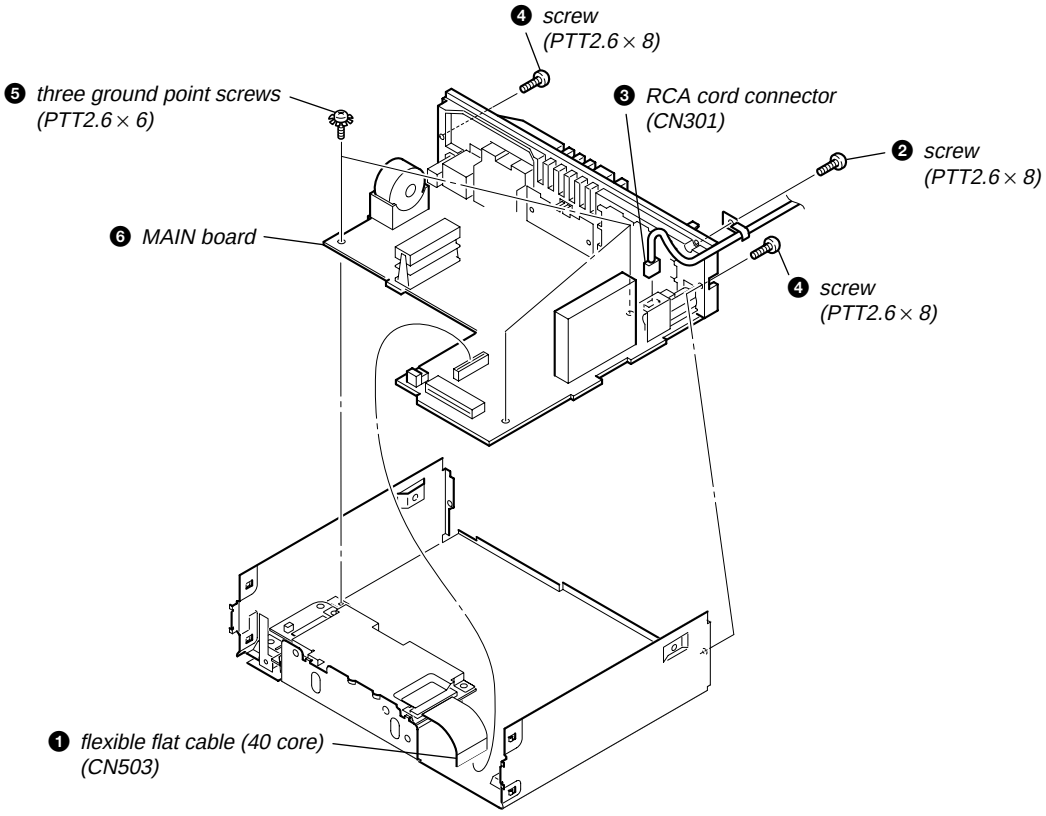
3-4. SUB PANEL ASSY


❶ screw (PTT2.6 × 6)
❸ connector (CN500)
❷ cover
❻ two claws
❺ two claws
❹ two screws (PTT2.6 × 6)
❽ sub panel assy
❼ flexible flat cable (22 core) (CN602)

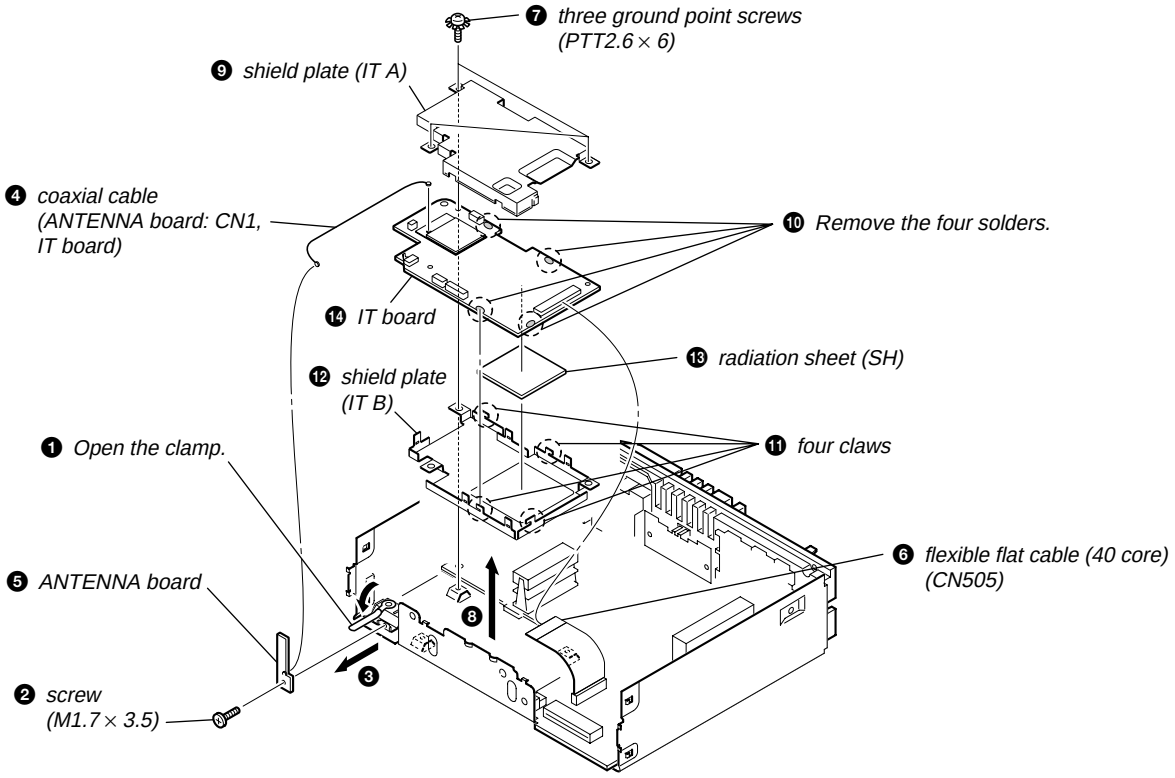
3-5. CD MECHANISM BLOCK (MG-611WA-186//Q)



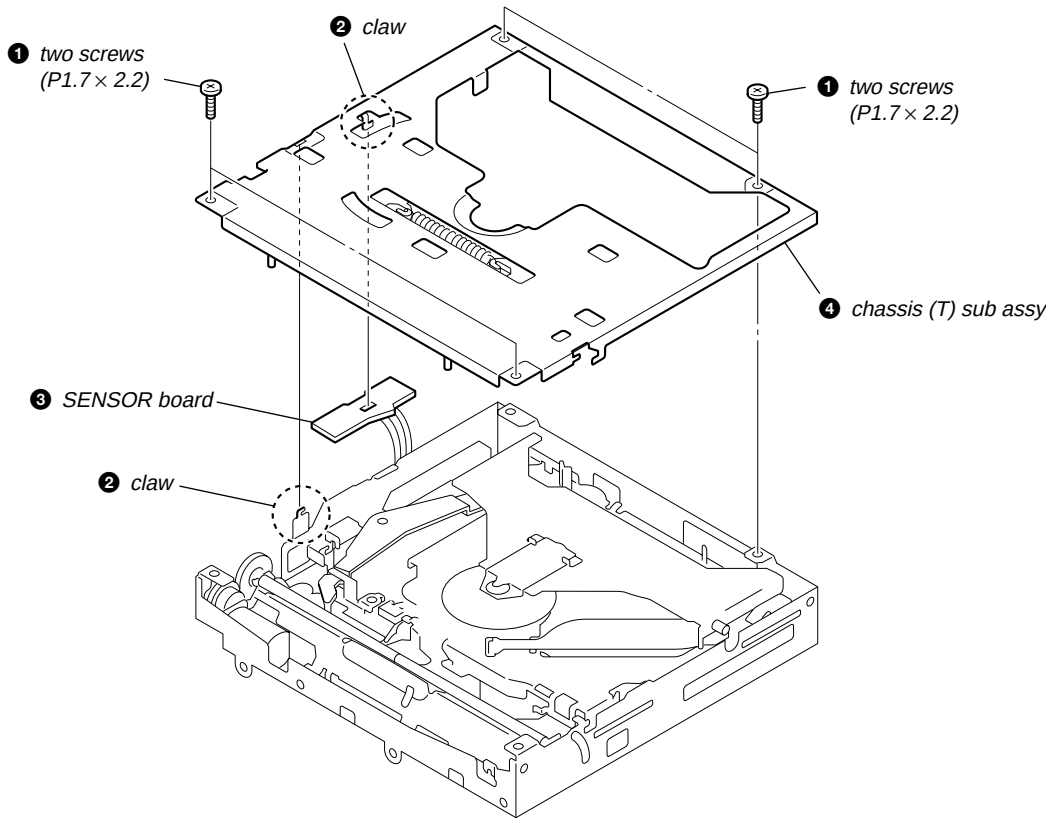
3-6. MAIN BOARD



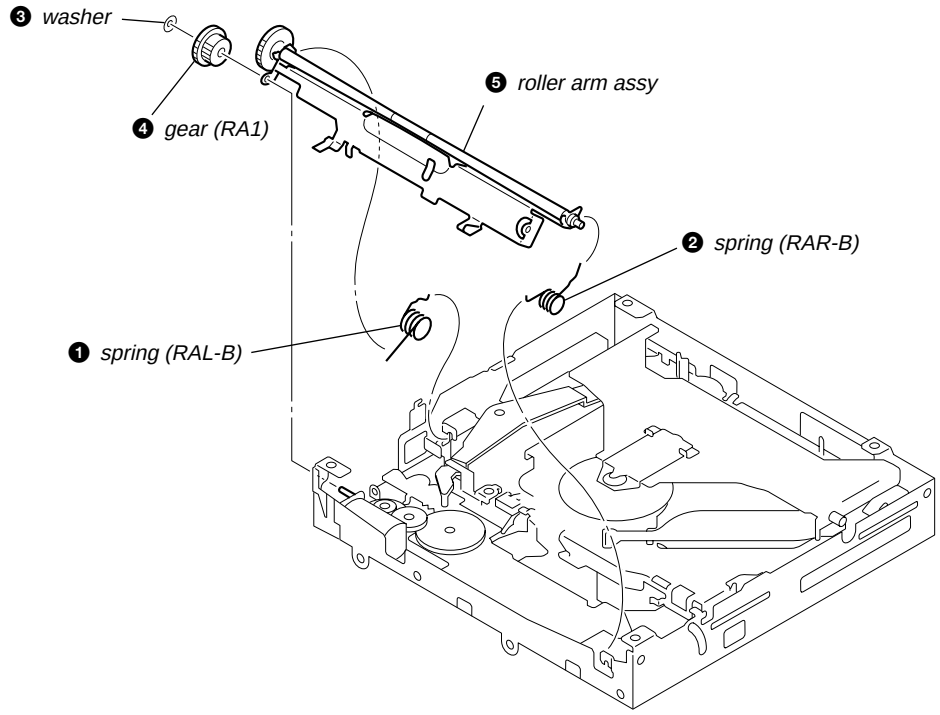
3-7. ANTENNA BOARD, IT BOARD


❼ three ground point screws (PTT2.6 × 6)
❾ shield plate (IT A)
❹ coaxial cable (ANTENNA board: CN1, IT board)
❿ Remove the four solders.
⓮ IT board
⓭ radiation sheet (SH)
⓬ shield plate (IT B)
❶ Open the clamp.
⓫ four claws
❻ flexible flat cable (40 core) (CN505)
❺ ANTENNA board
❽
❸
❷ screw (M1.7 × 3.5)

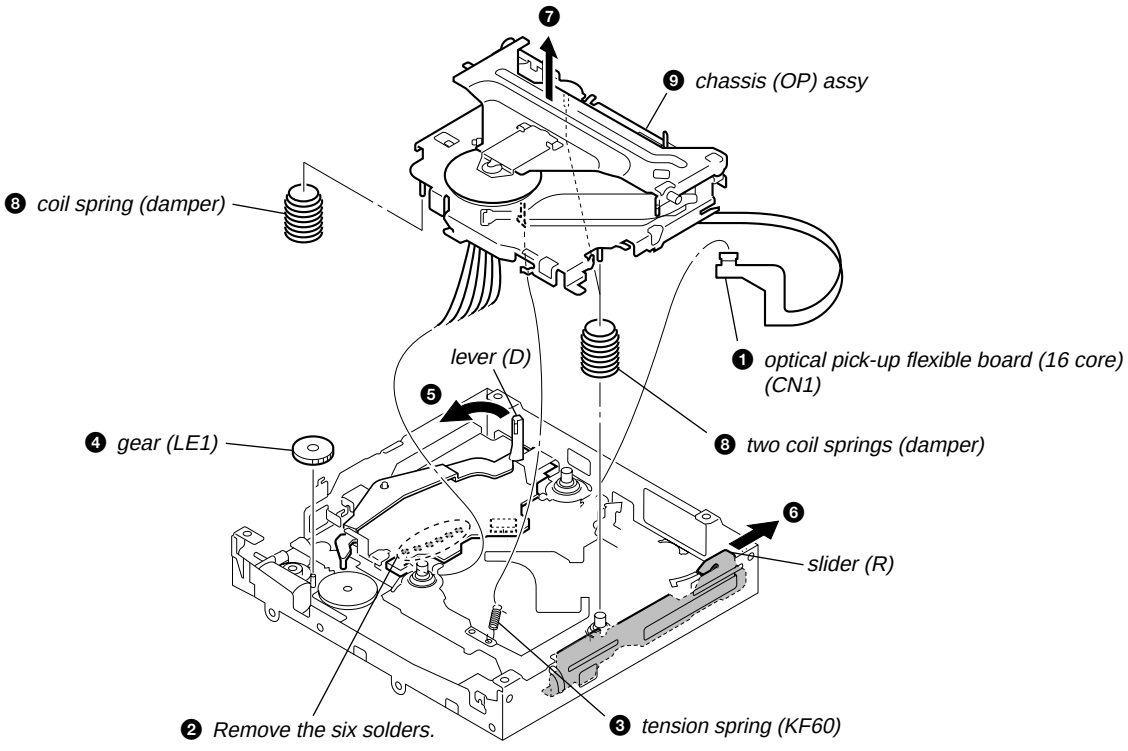
3-8. CHASSIS (T) SUB ASSY



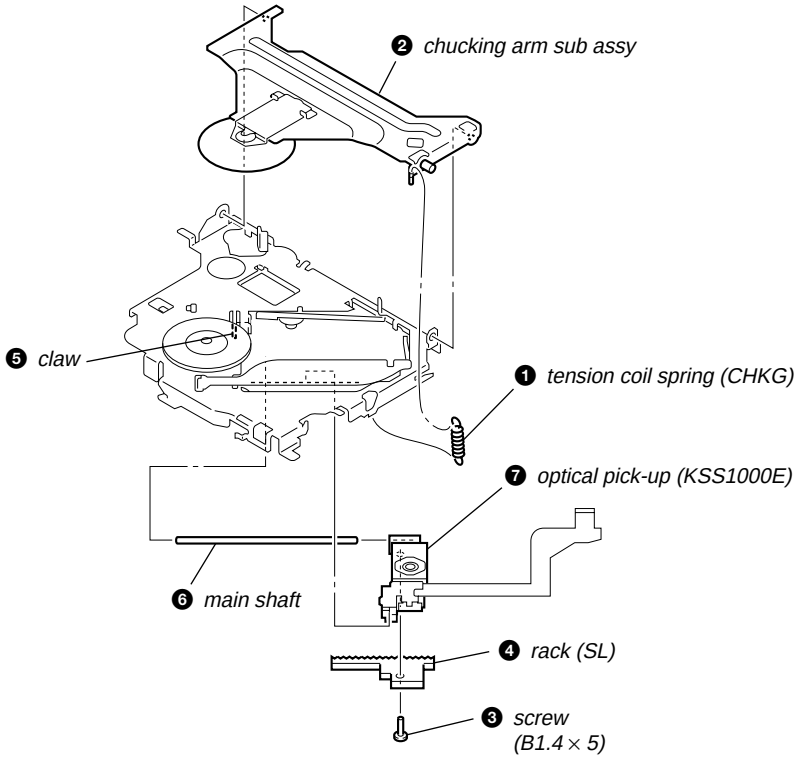
3-9. ROLLER ARM ASSY



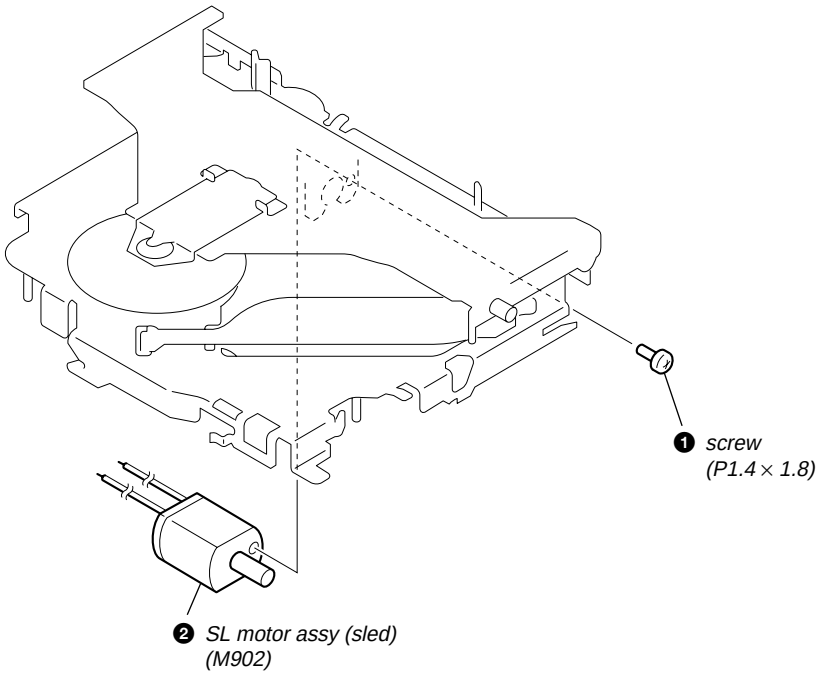
3-10. CHASSIS (OP) ASSY



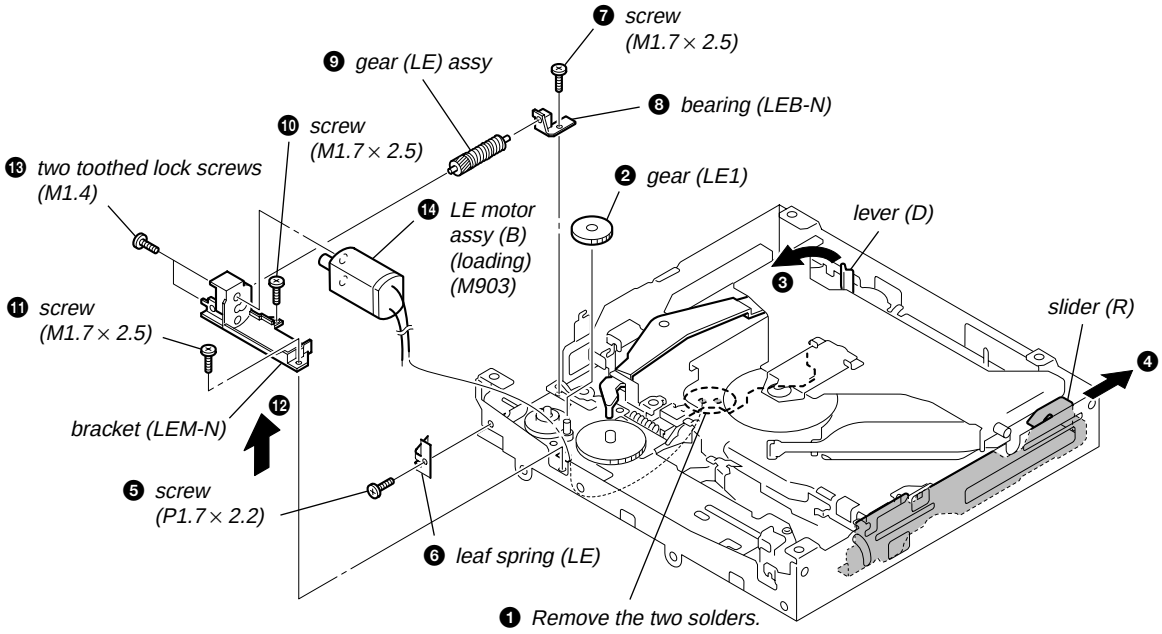
3-11. OPTICAL PICK-UP (KSS1000E)



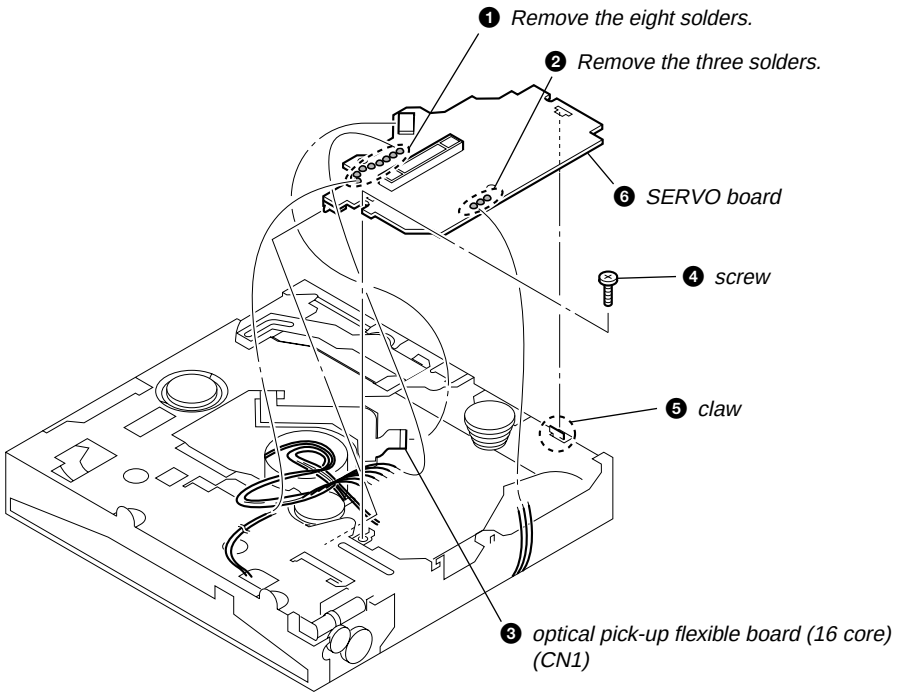
3-12. SL MOTOR ASSY (SLED) (M902)



3-13. LE MOTOR ASSY (B) (LOADING) (M903)



3-14. SERVO BOARD


❶ Remove the eight solders.
❷ Remove the three solders.
❻ SERVO board
❹ screw
❺ claw
❸ optical pick-up flexible board (16 core) (CN1)

SECTION 4
TEST MODE

SERVICE MODE

The version of each microcomputer is displayed. The firmware can be updated.

1. Version Display

Procedure:

1. Power supply of the set is turned off.
2. Press the [4] → [5] → [6] ([6] is pressed for two seconds) button of the set sequentially, and enter the service mode.
3. The version of each microcomputer confirmation screen is displayed.
4. Press the [OFF] button of the set, and release the service mode.

2. The Version Up of the Firmware

To secure the connectivity with the new cellular phone etc. put on the market after this machine is put on the market, the upgrade in service is done.

Procedure:

1. The USB memory is prepared, and the firmware is downloaded to the USB memory. (The USB memory is a thing to prepare the one of about 64MB made of SONY POCKET BIT.)
2. Power supply of the set is turned off.
3. Press the [4] → [5] → [6] ([6] is pressed for two seconds) button of the set sequentially, and enter the service mode.
4. Wait for 1 minute after executing step 3, the set is connected with the USB memory with connected the USB cable (Part. No. J-2502-103-1).
5. Wait for 1 minute (time untill access LED of USB memory disappears) after executing step 4, push the joystick for two seconds of the set, and the version up confirmation screen is displayed.
6. Select “Yes” by using the UP/DOWN of joystick, and confirm the displayed version number, and push the joystick.
7. The version up is executed. When the version up ends, reset is automatically done, and usual screen of power off state is displayed.

DIAG MODE

Mode that memorizes reset frequency and operating time, etc. in nonvolatile memory, and reads it.

Procedure:

1. Turn off the setting of the bluetooth signal, and power supply is turned off.
2. Press the [4] → [5] → [4] ([4] is pressed for two seconds) button of the set sequentially, and enter the DIAG mode.
3. Following information is displayed when operating it according to Fig.1.

   Reset frequency
   - Frequency to which [RESET] button is pressed and frequency of POWER ON RESET when power supply is turned on.
   - Software reset when releasing test mode is not counted.
   - Number of maximum counts: 254 times.

   Reset frequency with watchdog timer
   - Reset frequency with watchdog timer.
   - Number of maximum counts: 254 times.

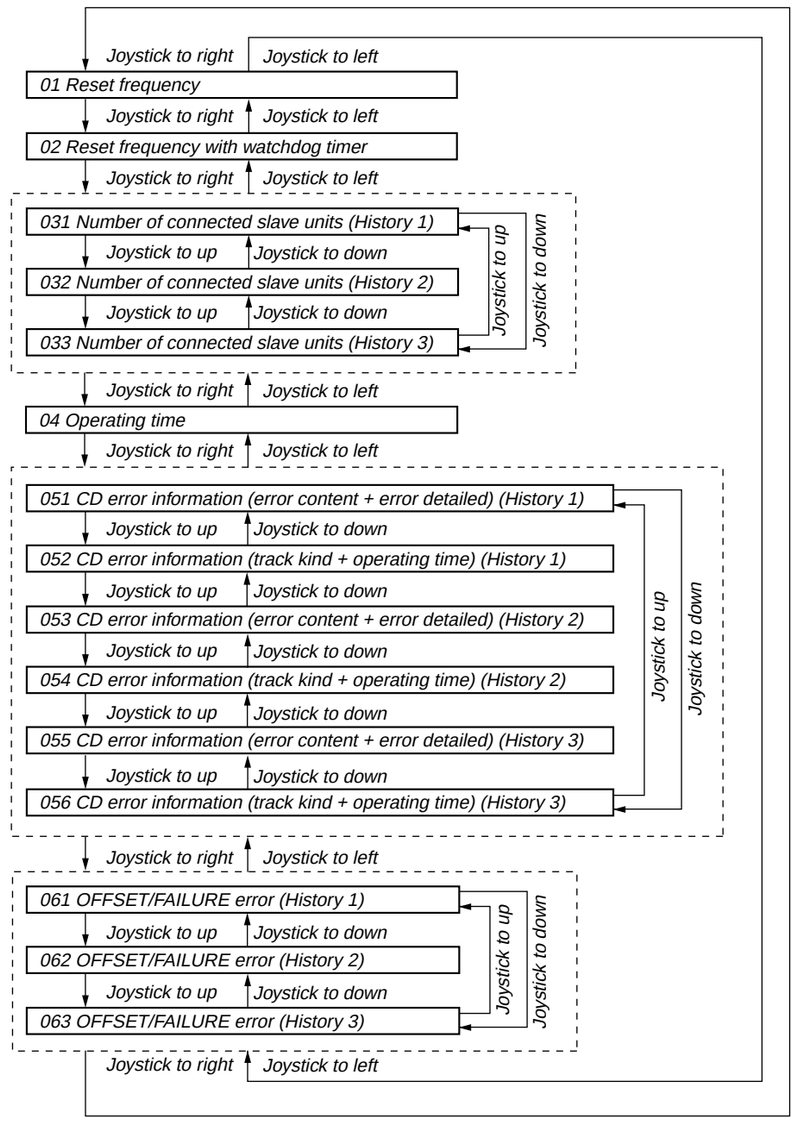
   Number of connected slave units
   - The number of an external connection of the SONY BUS slave unit is memorized by 3 histories or less.
   - The SONY BUS slave unit that becomes an object is CD slave, MD slave, and undefined slave.
   - Connected number in test mode is off the subject.

   Operating time
   - Time that the set is operating (Every hour) is counted.
   - Operating time in test mode is off the subject.
   - Time of maximum counts: 65534 hours.

   CD error information
   - CD mechanism error information in the head unit is memorized by 3 histories or less.
   - The memorized content is error information, a track kind, and operating time (Every hour).
   - Error in test mode is off the subject.

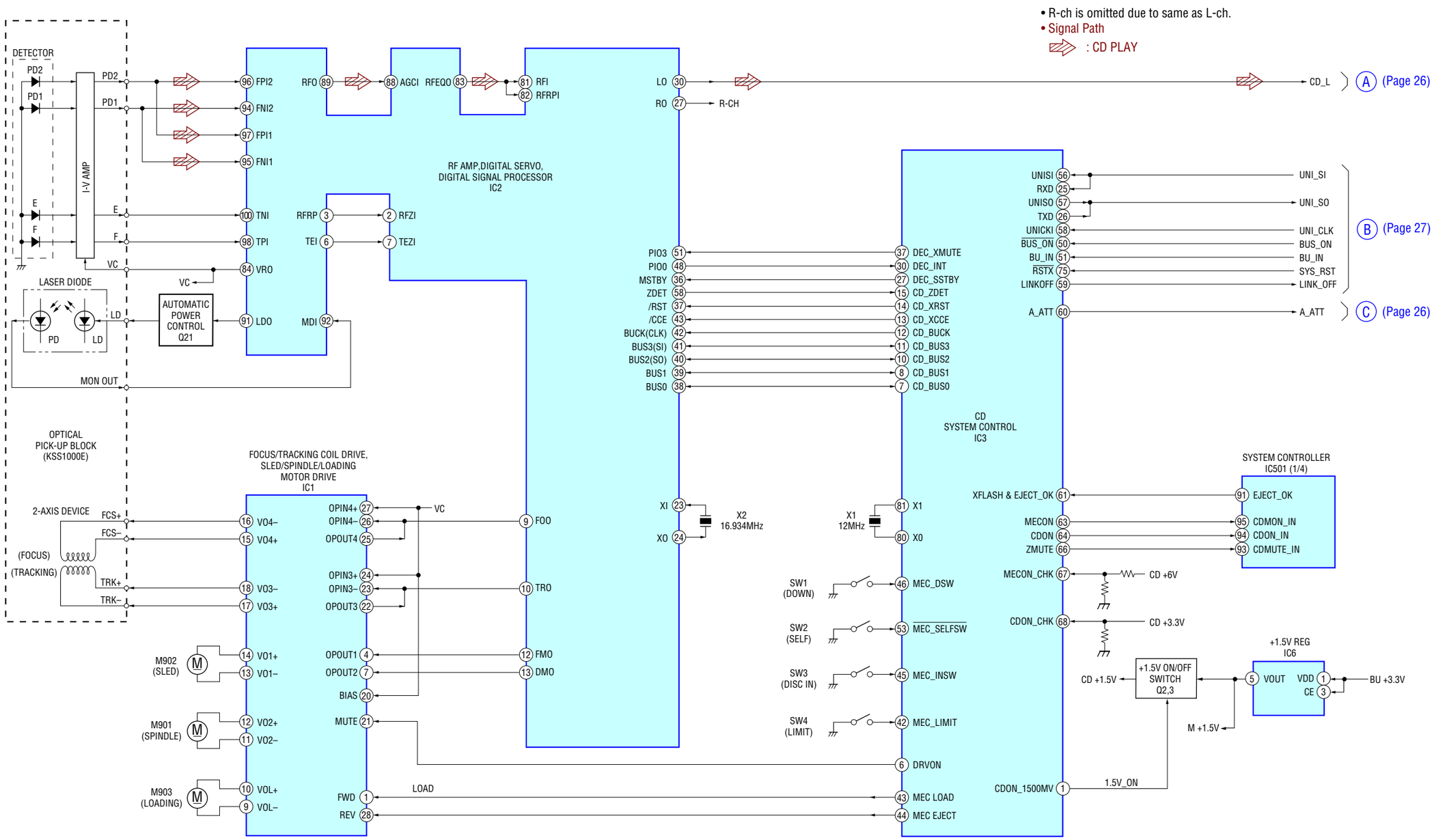
   Amplifier IC with built-in power supply error information
   - Information on the OFFSET/FAILURE error with amplifier IC with built-in the power supply is memorized by 3 histories or less.
   - The memorized content is error information and operating time (Every hour).
   - OFFSET/FAILURE error in test mode is off the subject.
4. Press the [OFF] button of the set, and release the DIAG mode.

Fig.1 Method of operating DIAG mode

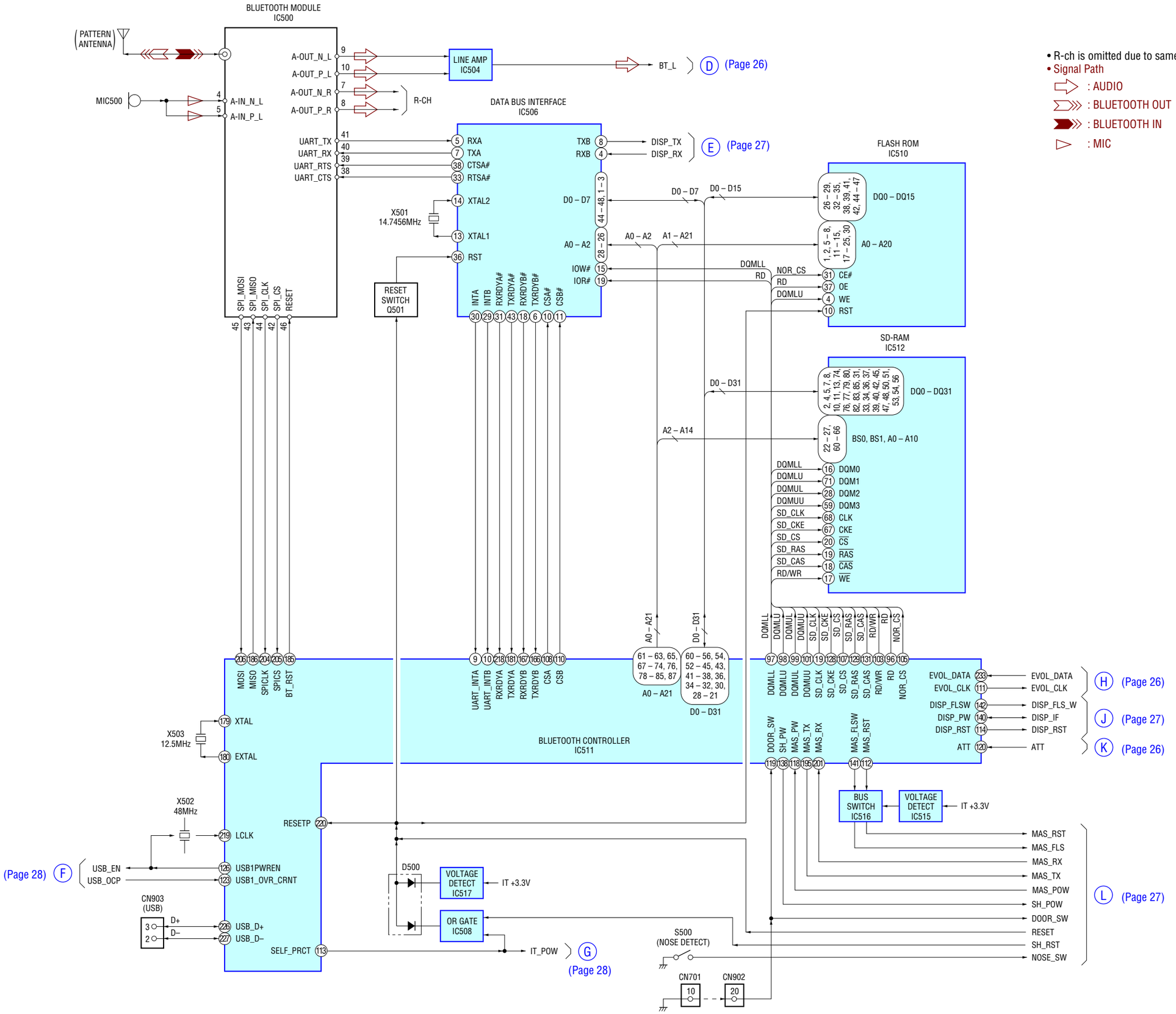

Joystick to right
Joystick to left
01 Reset frequency
02 Reset frequency with watchdog timer
031 Number of connected slave units (History 1)
032 Number of connected slave units (History 2)
033 Number of connected slave units (History 3)
Joystick to up
Joystick to down
04 Operating time
051 CD error information (error content + error detailed) (History 1)
052 CD error information (track kind + operating time) (History 1)
053 CD error information (error content + error detailed) (History 2)
054 CD error information (track kind + operating time) (History 2)
055 CD error information (error content + error detailed) (History 3)
056 CD error information (track kind + operating time) (History 3)
061 OFFSET/FAILURE error (History 1)
062 OFFSET/FAILURE error (History 2)
063 OFFSET/FAILURE error (History 3)

SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM – CD SERVO Section –

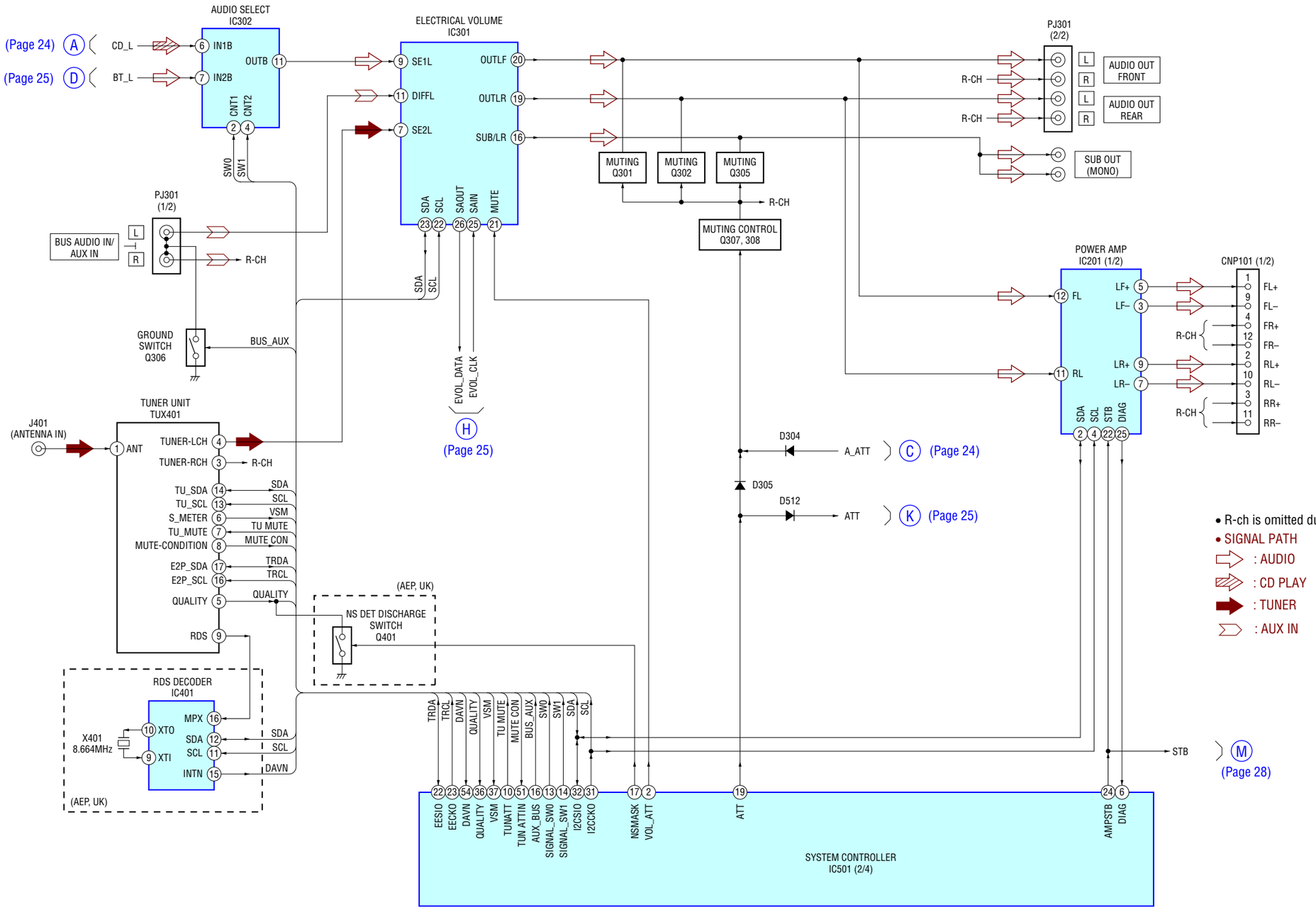


5-2. BLOCK DIAGRAM – BLUETOOTH Section –

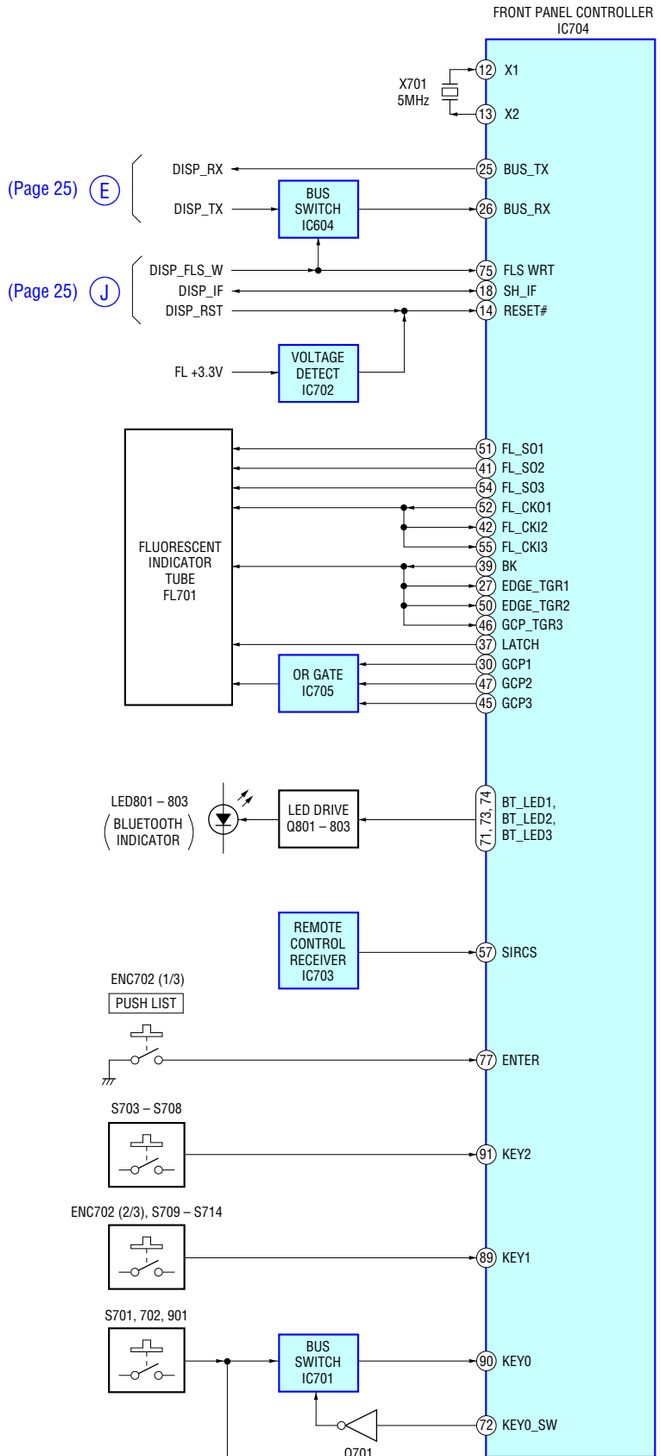


- R-ch is omitted due to same as L-ch.
- Signal Path
  - : AUDIO
  - : BLUETOOTH OUT
  - : BLUETOOTH IN
  - : MIC

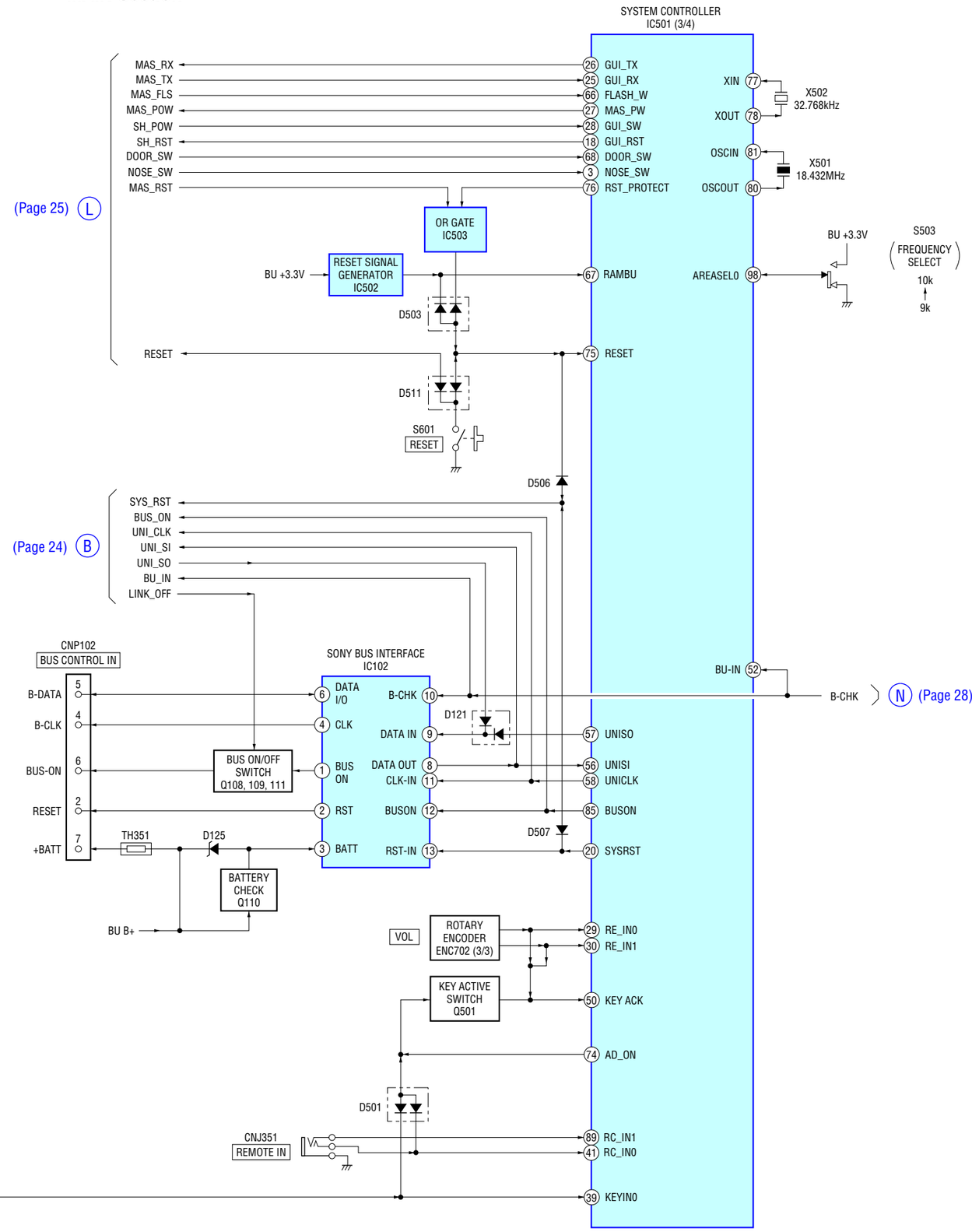
5-3. BLOCK DIAGRAM – AUDIO Section –



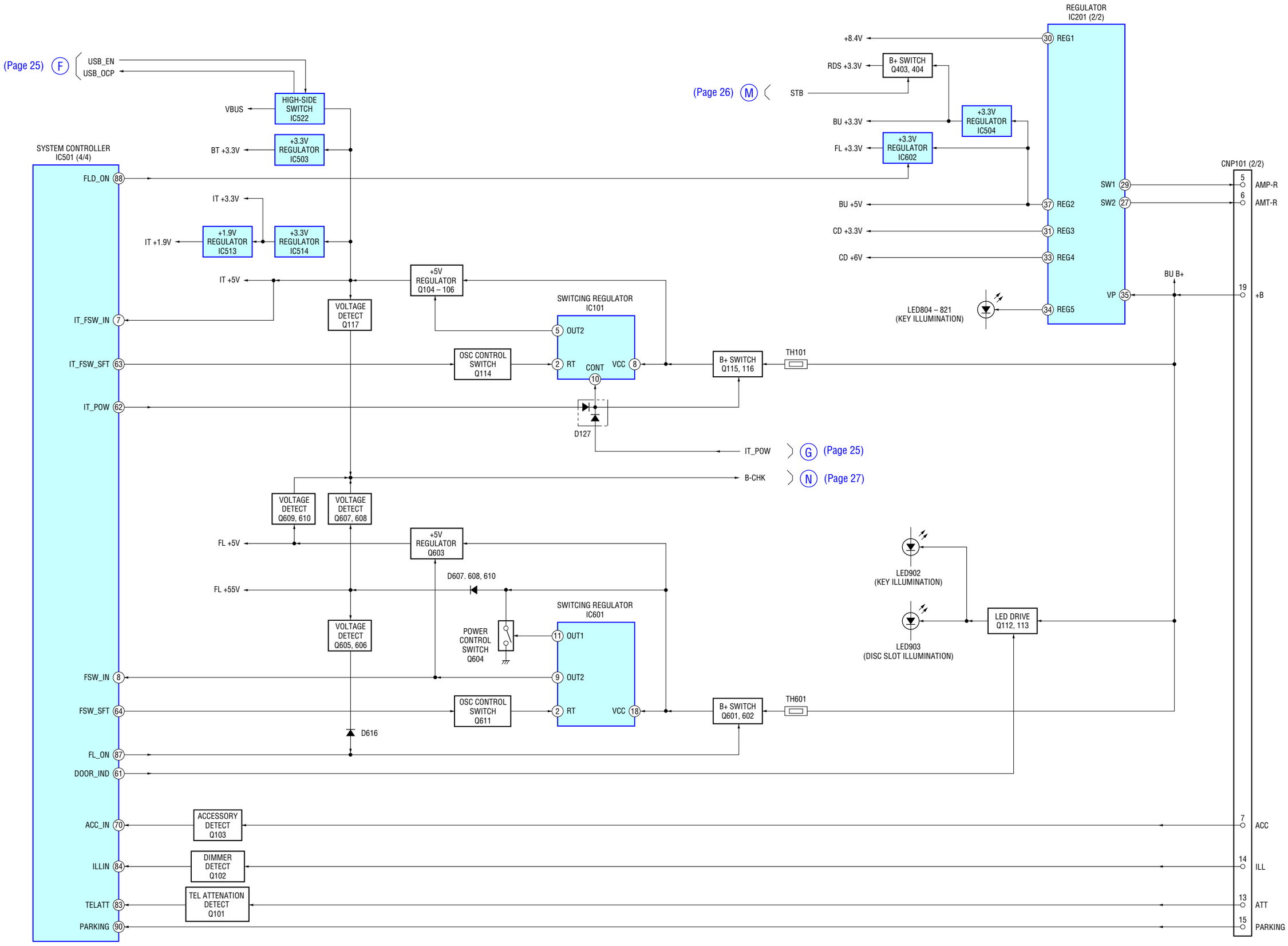
5-4. BLOCK DIAGRAM
– DISPLAY Section –



– MAIN Section –



5-5. BLOCK DIAGRAM – POWER SUPPLY Section –



• Note for Printed Wiring Boards and Schematic Diagrams

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

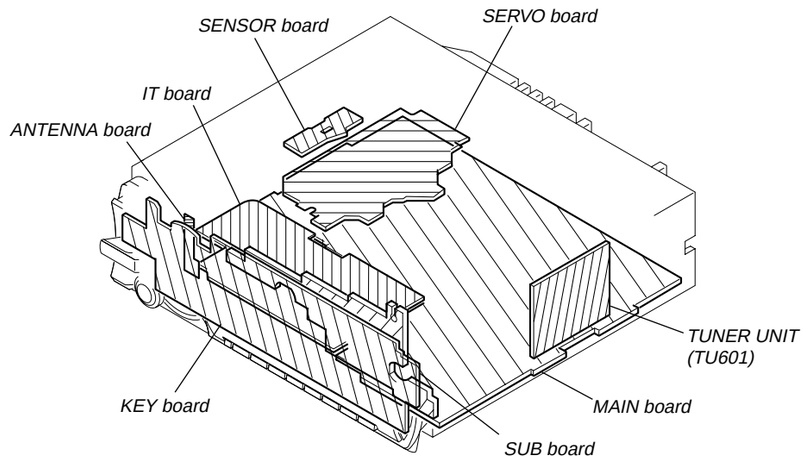
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

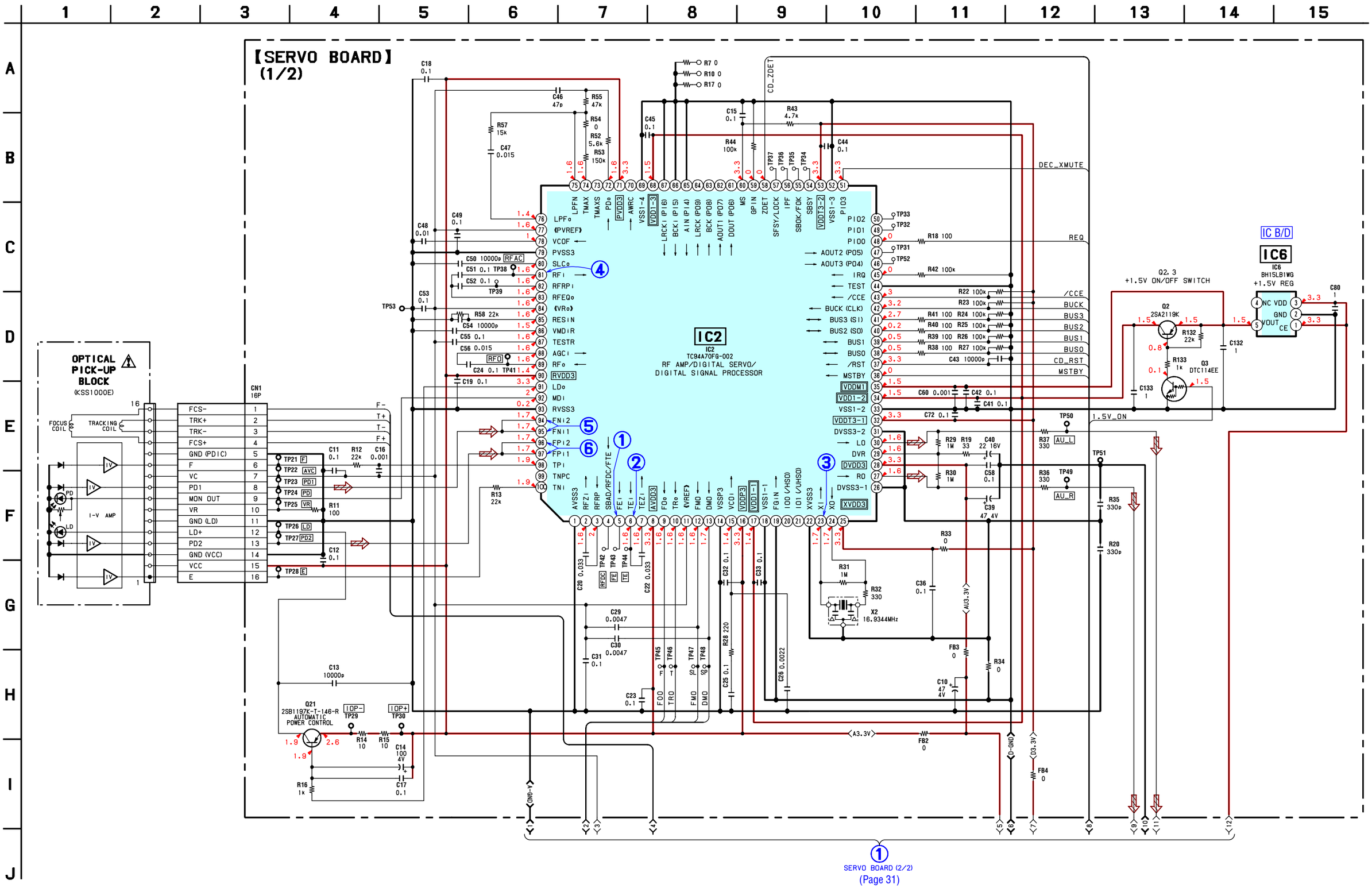
- ▬▬ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  – SERVO Section –
  no mark : CD PLAY
  – Other boards –
  no mark : TUNER
  ( ) : CD PLAY
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : AUDIO
  ➡ : TUNER
  ⇨ : CD PLAY
  ⇨ : BLUETOOTH OUT
  ➡ : BLUETOOTH IN
  ▷ : MIC
  ⇨ : AUX IN
- Abbreviation
  CND : Canadian model

• Circuit Boards Location



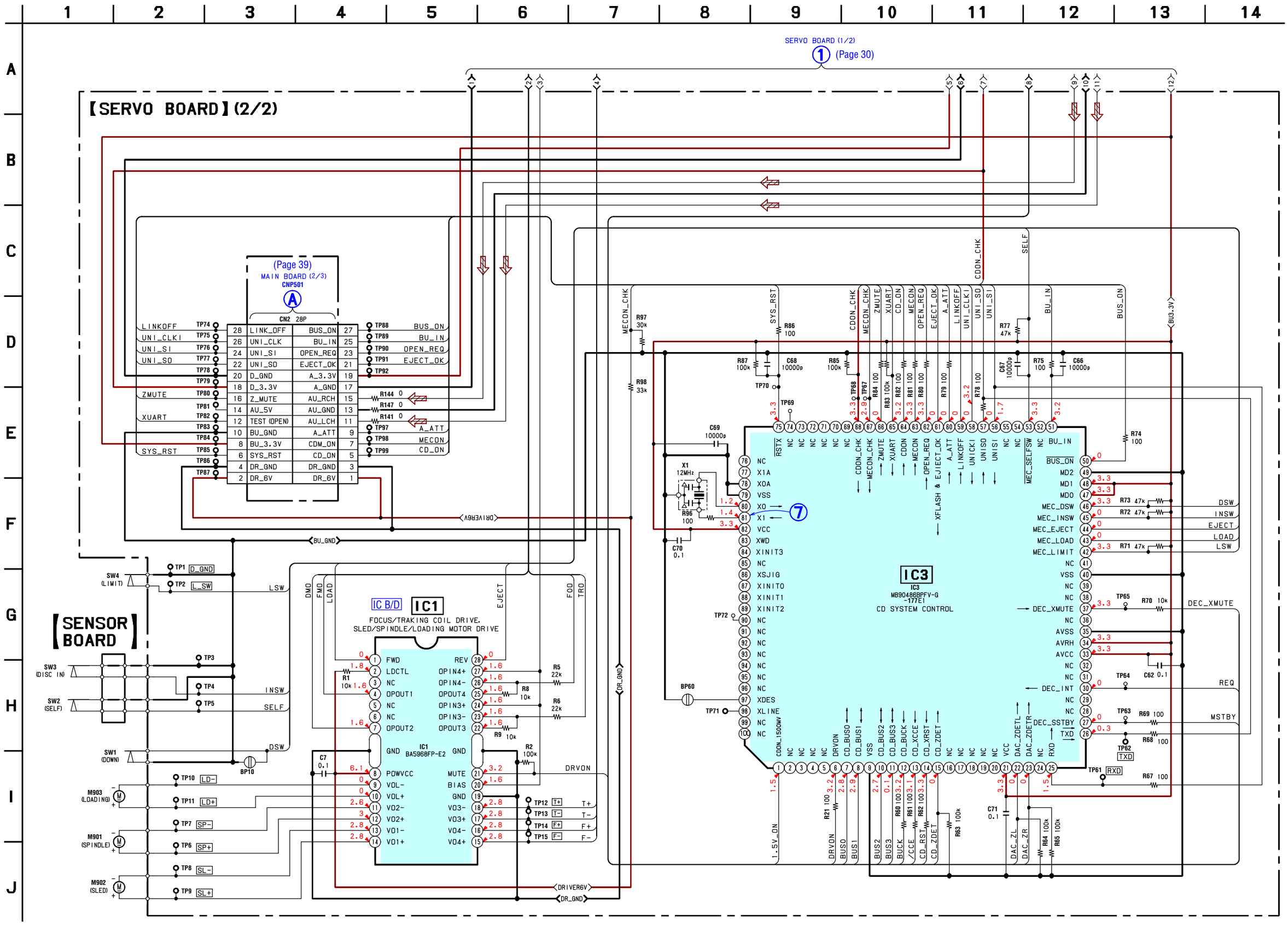
5-6. SCHEMATIC DIAGRAM – SERVO Section (1/2) –

• See page 41 for Waveforms. • See page 47 for IC Block Diagrams. • See page 52 for IC Pin Function Description.

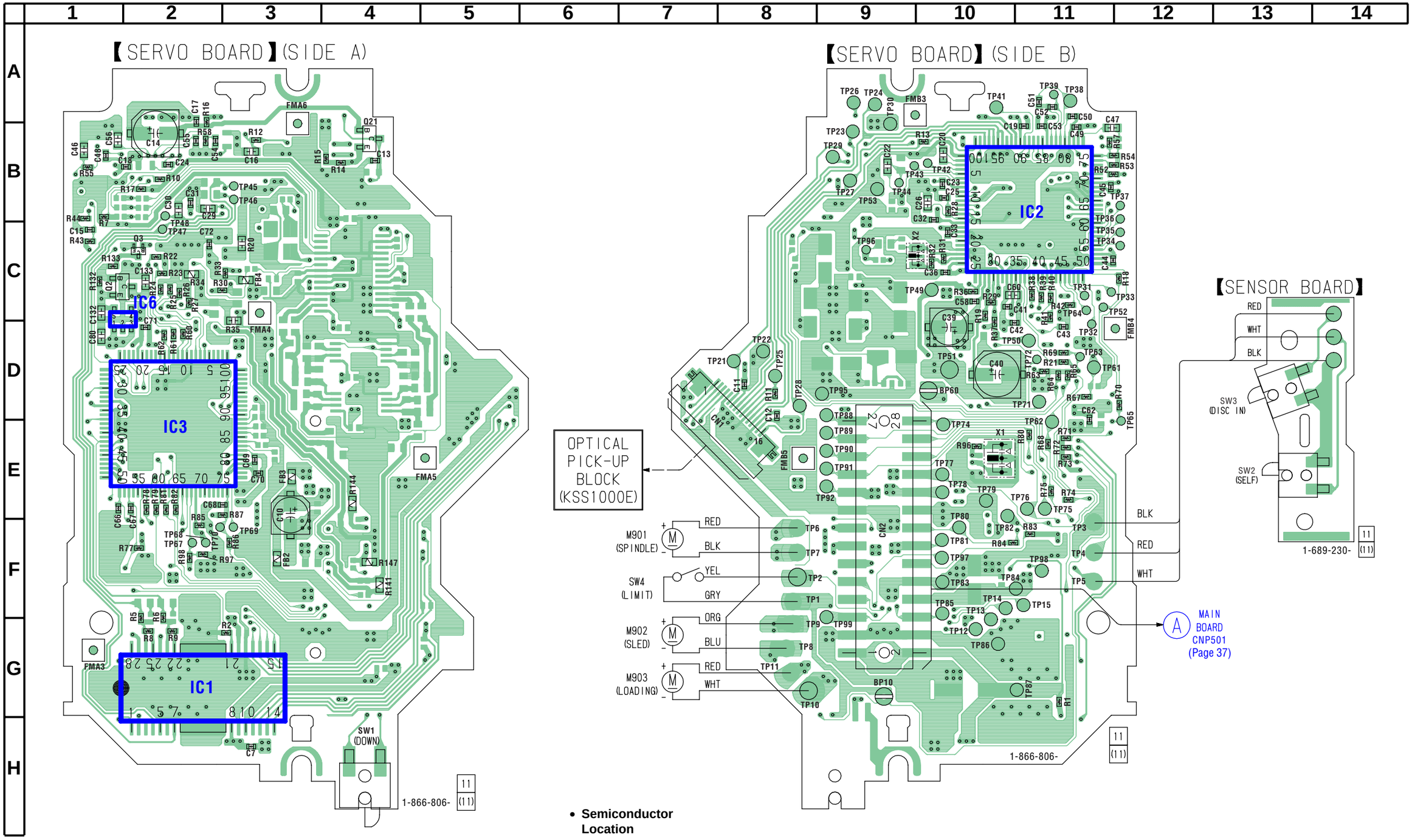


5-7. SCHEMATIC DIAGRAM – SERVO Section (2/2) –

• See page 41 for Waveforms. • See page 47 for IC Block Diagrams. • See page 52 for IC Pin Function Description.



5-8. PRINTED WIRING BOARDS – SERVO Section – • See page 29 for Circuit Boards Location. : Uses unleaded solder.



- **Semiconductor Location**

Ref. No.	Location
IC1	G-2
IC2	B-11
IC3	D-2
IC6	D-1
Q2	C-1
Q3	C-2
Q21	B-4

5-9. PRINTED WIRING BOARD – IT Board –

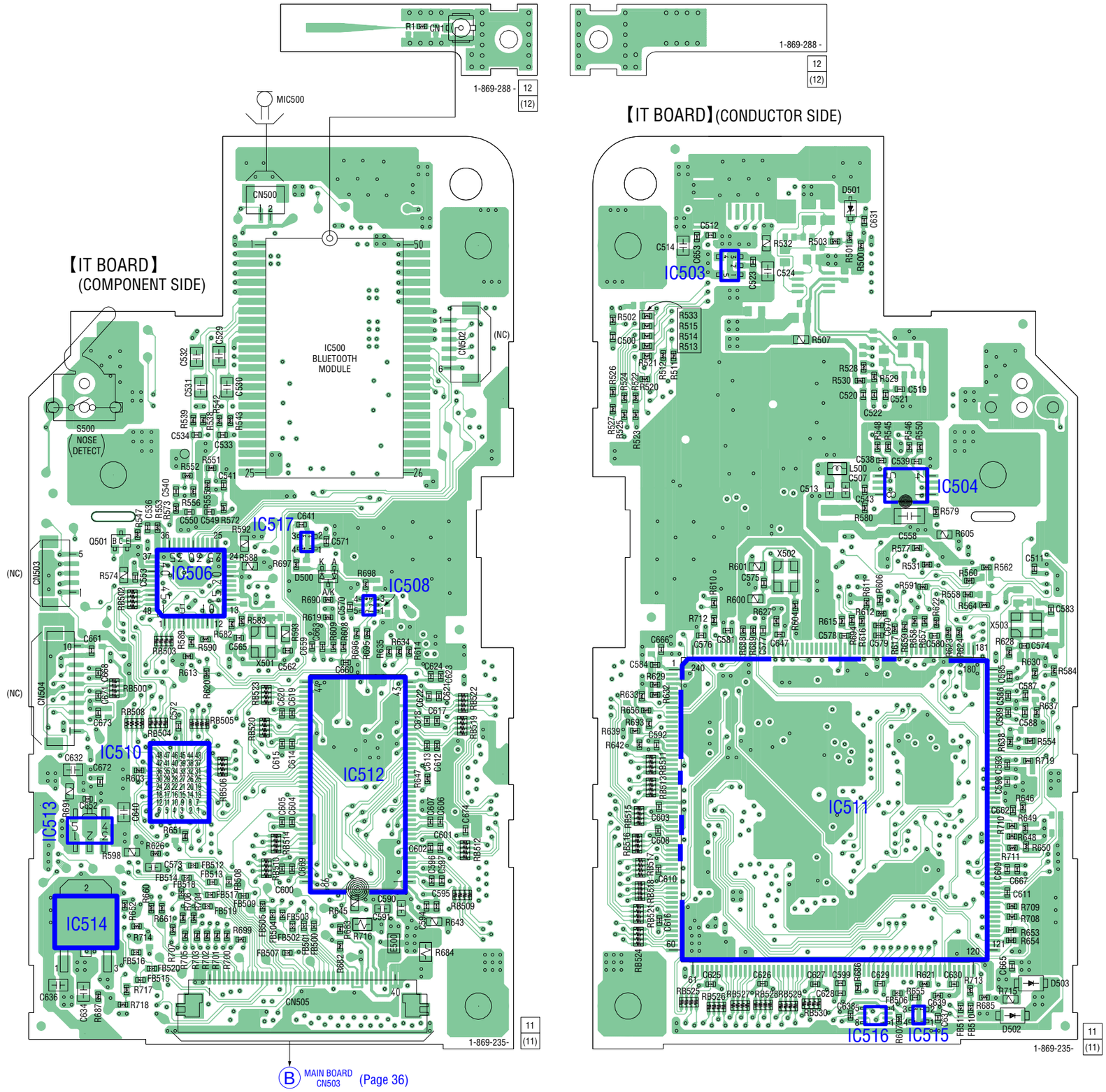
• See page 29 for Circuit Boards Location. : Uses unleaded solder.

【ANTENNA BOARD】(COMPONENTSIDE)

【ANTENNA BOARD】(CONDUCTORSIDE)

【IT BOARD】(COMPONENT SIDE)

【IT BOARD】(CONDUCTOR SIDE)



- **Semiconductor Location**

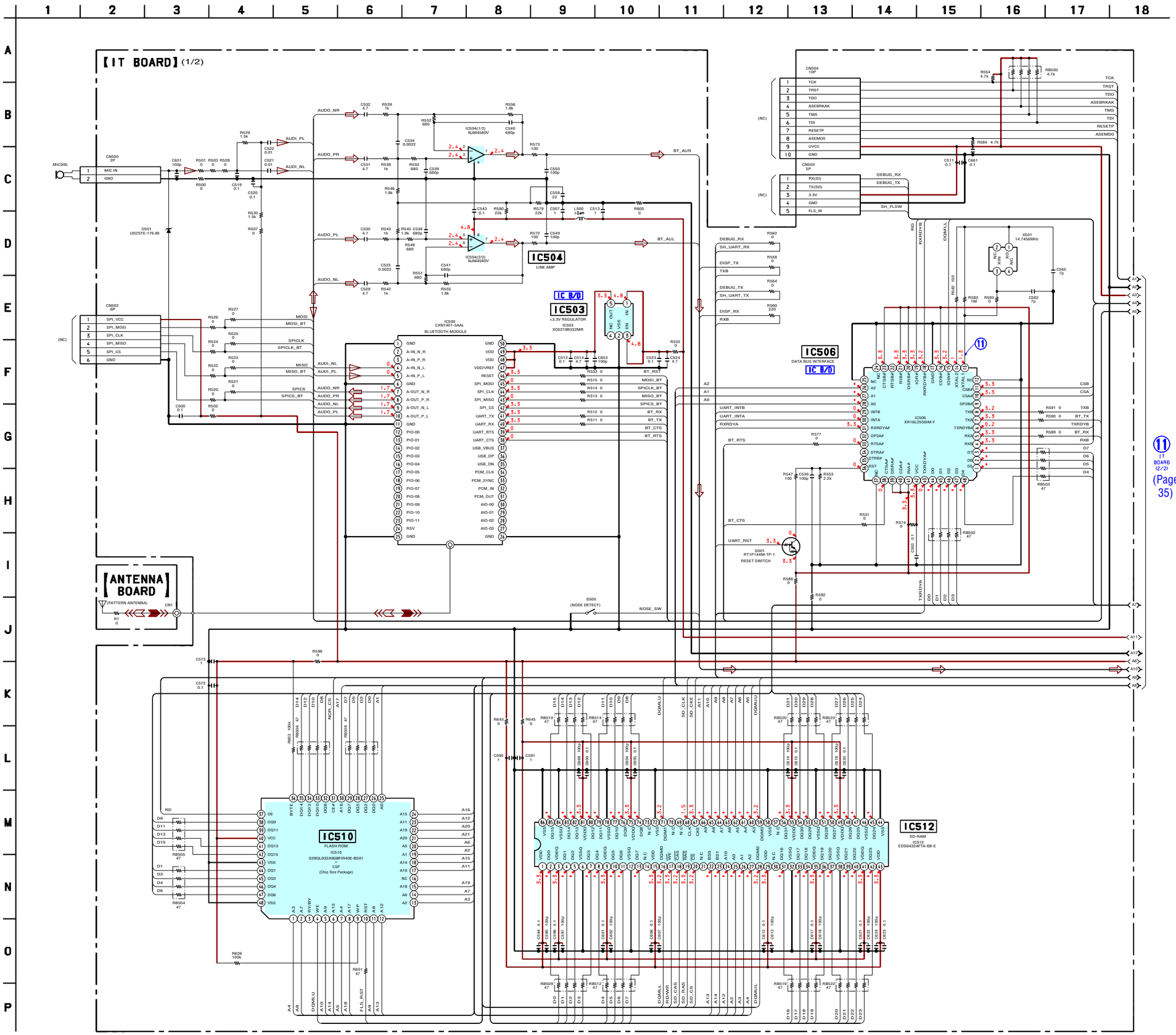
Ref. No.	Location
D500	E-3
D501	B-6
D502	G-7
D503	G-7
IC503	C-5
IC504	D-6
IC506	E-2
IC508	E-3
IC510	F-2
IC511	F-6
IC512	F-3
IC513	F-1
IC514	G-1
IC515	G-6
IC516	G-6
IC517	D-2
Q501	D-1

Note: When IT board is replaced, the version up of the firmware is necessary. When performing the version up, refer to THE VERSION UP OF THE FIRMWARE in SERVICING NOTES.

Note: When IC500/510 on the IT board are damaged, exchange the new IT board for the IT board which IC damaged.

5-10. SCHEMATIC DIAGRAM – IT Board (1/2) –

• See page 41 for Waveforms. • See page 47 for IC Block Diagrams.

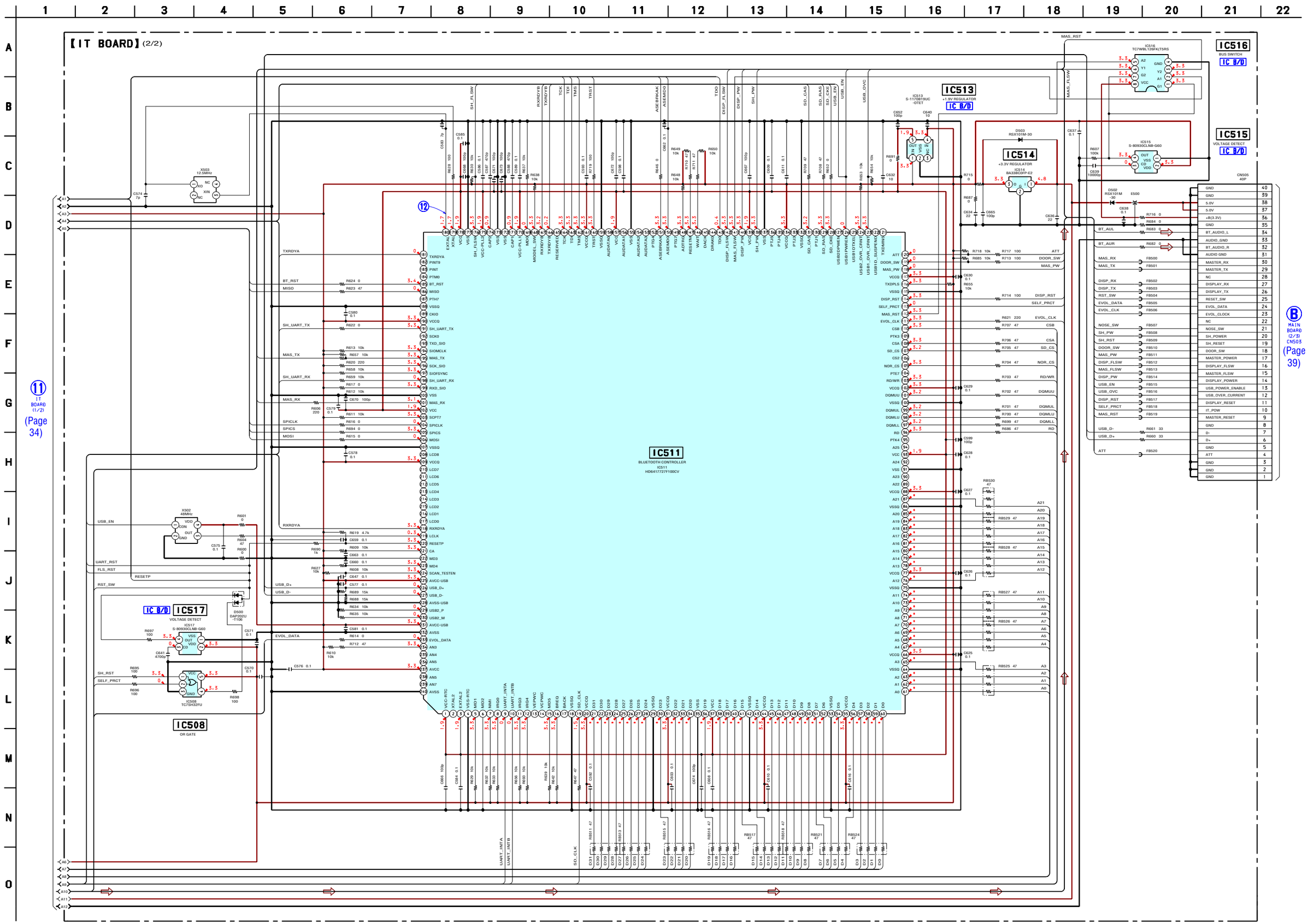


Note: When IT board is replaced, the version up of the firmware is necessary. When performing the version up, refer to THE VERSION UP OF THE FIRMWARE in SERVICING NOTES.

Note: When IC500/510 on the IT board are damaged, exchange the new IT board for the IT board which IC damaged.

5-11. SCHEMATIC DIAGRAM – IT Board (2/2) –

• See page 41 for Waveforms. • See page 47 for IC Block Diagrams. • See page 52 for IC Pin Function Description.



Note: When IT board is replaced, the version up of the firmware is necessary. When performing the version up, refer to THE VERSION UP OF THE FIRMWARE in SERVICING NOTES.

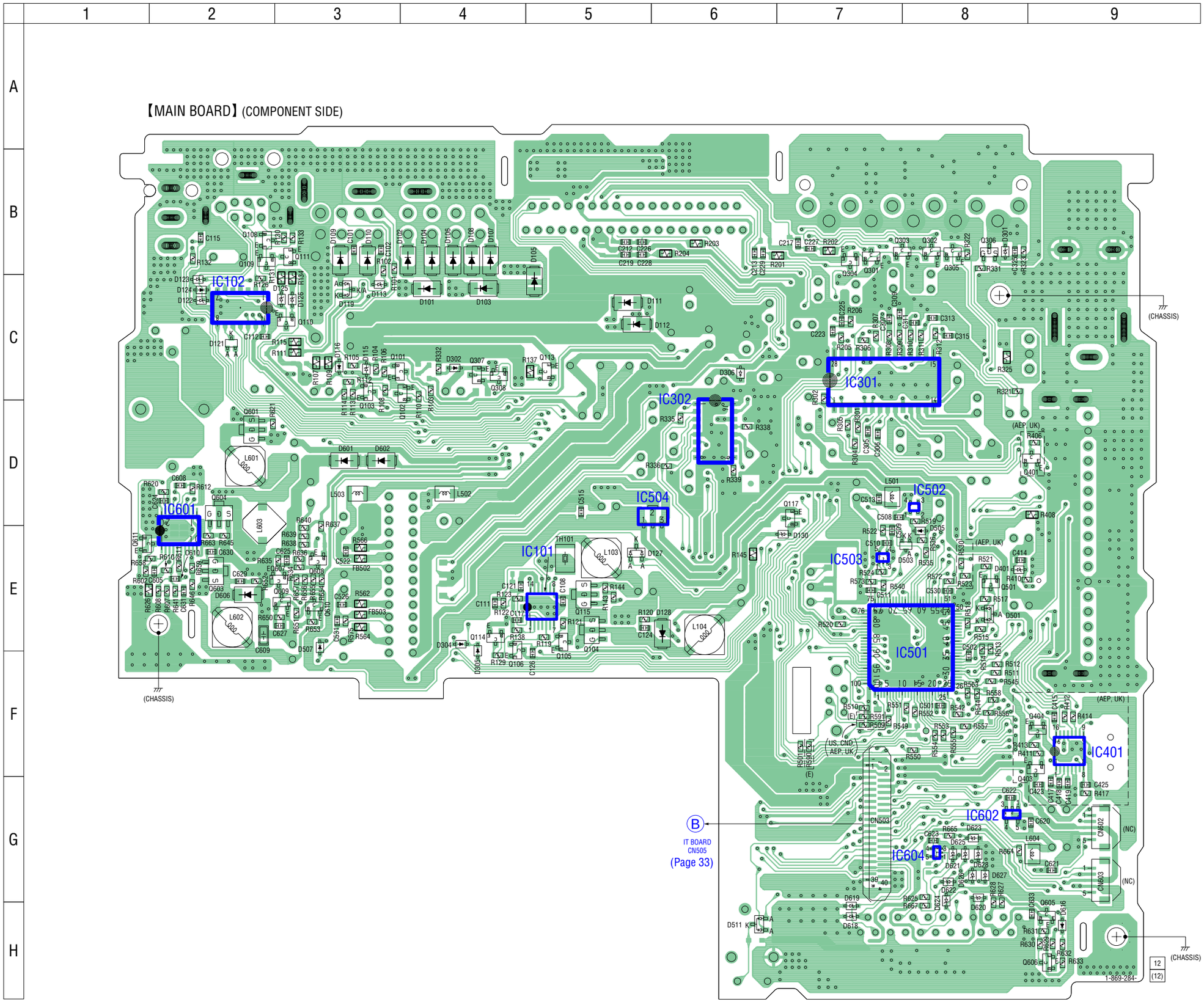
5-12. PRINTED WIRING BOARD – MAIN Board (Component Side) –

• See page 29 for Circuit Boards Location.

: Uses unleaded solder.

• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D101	C-4		
D102	B-4	IC101	E-5
D103	C-4	IC102	C-2
D104	B-4	IC301	C-7
D105	C-5	IC302	D-6
D106	B-4	IC401	F-9
D107	B-4	IC501	E-8
D108	B-4	IC502	D-8
D109	B-3	IC503	E-7
D110	B-3	IC504	D-6
D111	C-5	IC601	E-2
D112	C-5	IC602	G-8
D113	C-3	IC604	G-8
D115	C-3		
D116	C-3	Q101	C-3
D119	C-3	Q102	C-4
D121	C-2	Q103	C-3
D122	C-2	Q104	E-5
D123	C-2	Q105	E-5
D124	C-2	Q106	E-4
D125	C-3	Q108	B-2
D126	C-3	Q109	B-2
D127	E-5	Q110	C-3
D128	E-6	Q111	B-3
D130	E-7	Q113	C-5
D301	B-8	Q114	E-4
D302	C-4	Q115	E-5
D304	E-4	Q117	D-7
D305	F-4	Q301	B-7
D306	C-6	Q302	B-8
D401	E-8	Q303	B-8
D501	E-8	Q304	B-7
D503	E-8	Q305	B-8
D505	E-8	Q306	B-8
D507	E-3	Q307	C-4
D511	H-6	Q308	C-4
D601	D-3	Q401	D-9
D602	D-3	Q403	F-9
D606	E-2	Q404	F-9
D616	H-9	Q501	E-8
D618	H-7	Q601	D-2
D619	H-7	Q603	E-2
D620	G-8	Q604	D-2
D621	G-8	Q605	H-9
D622	G-8	Q606	H-9
D623	G-8	Q607	E-3
D624	G-8	Q608	E-3
D625	G-8	Q609	E-3
D626	G-8	Q610	E-3
D627	G-8	Q611	E-1
D628	G-8		

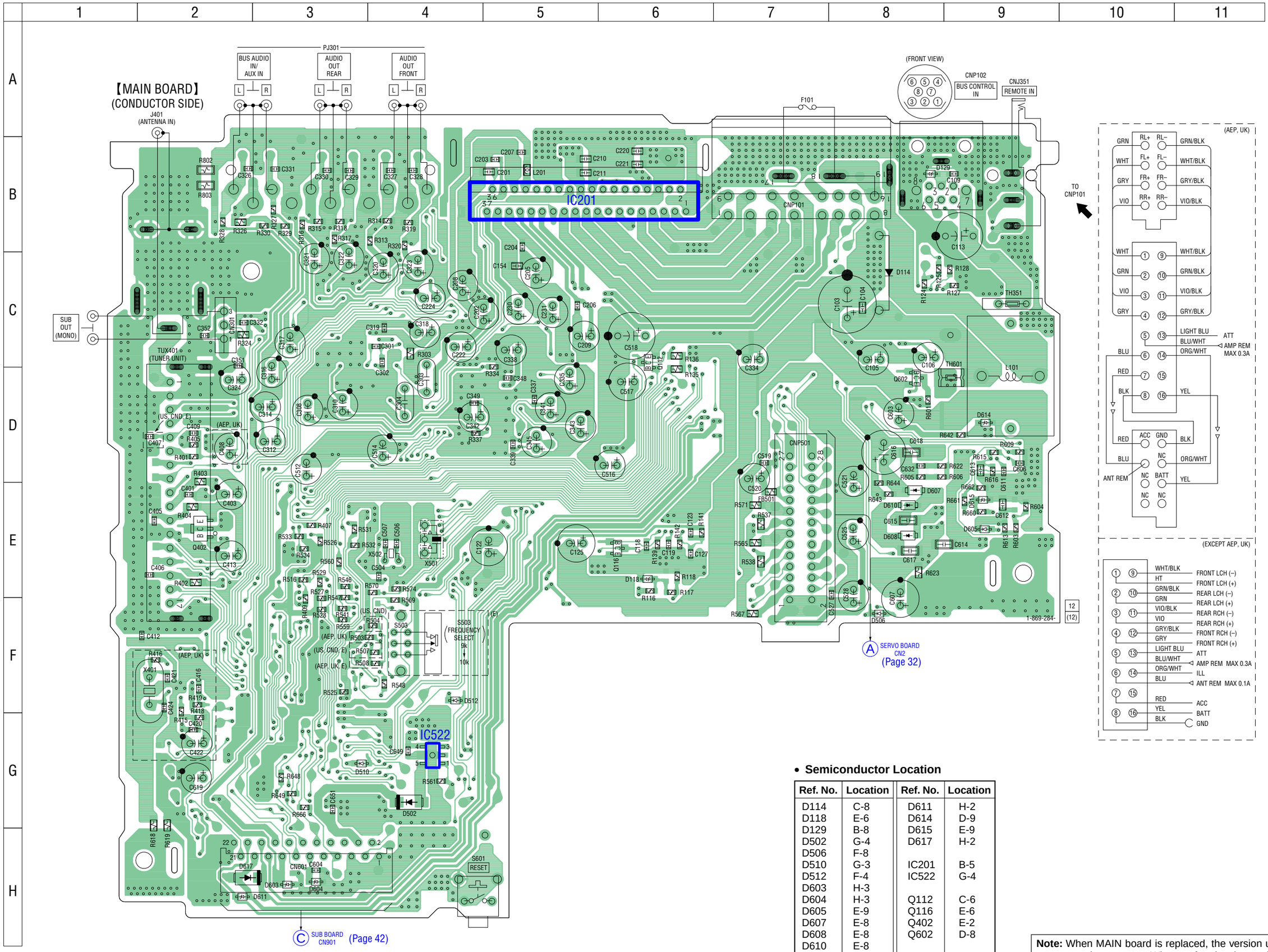


Note: When MAIN board or IC501 on the MIAN board are replaced, the version up of the firmware is necessary. When performing the version up, refer to THE VERSION UP OF THE FIRMWARE in SERVICING NOTES.

5-13. PRINTED WIRING BOARD – MAIN Board (Conductor Side) –

• See page 29 for Circuit Boards Location.

: Uses unleaded solder.



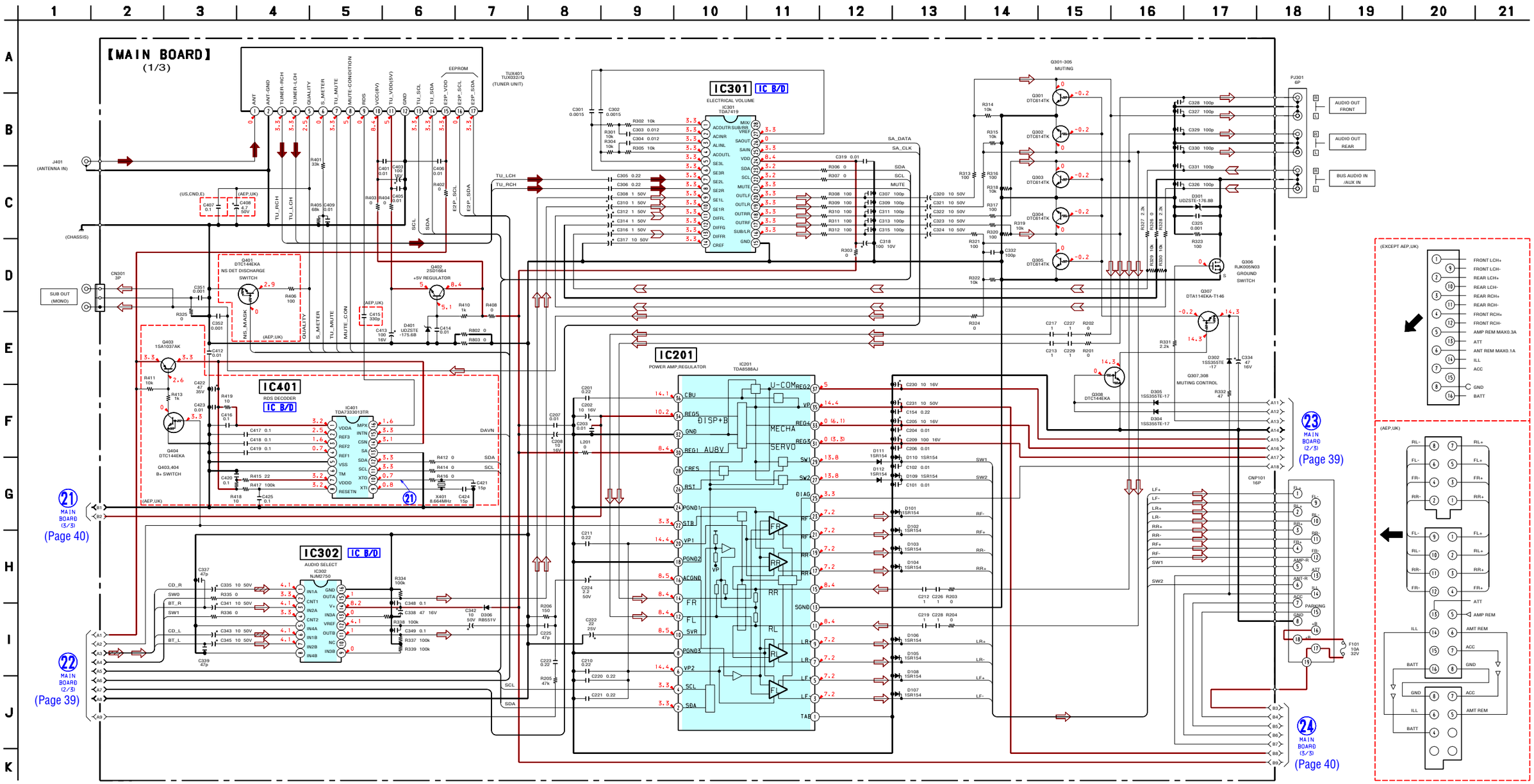
- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D114	C-8	D611	H-2
D118	E-6	D614	D-9
D129	B-8	D615	E-9
D502	G-4	D617	H-2
D506	F-8		
D510	G-3	IC201	B-5
D512	F-4	IC522	G-4
D603	H-3		
D604	H-3	Q112	C-6
D605	E-9	Q116	E-6
D607	E-8	Q402	E-2
D608	E-8	Q602	D-8
D610	E-8		

Note: When MAIN board is replaced, the version up of the firmware is necessary. When performing the version up, refer to THE VERSION UP OF THE FIRMWARE in SERVICING NOTES.

5-14. SCHEMATIC DIAGRAM – MAIN Board (1/3) –

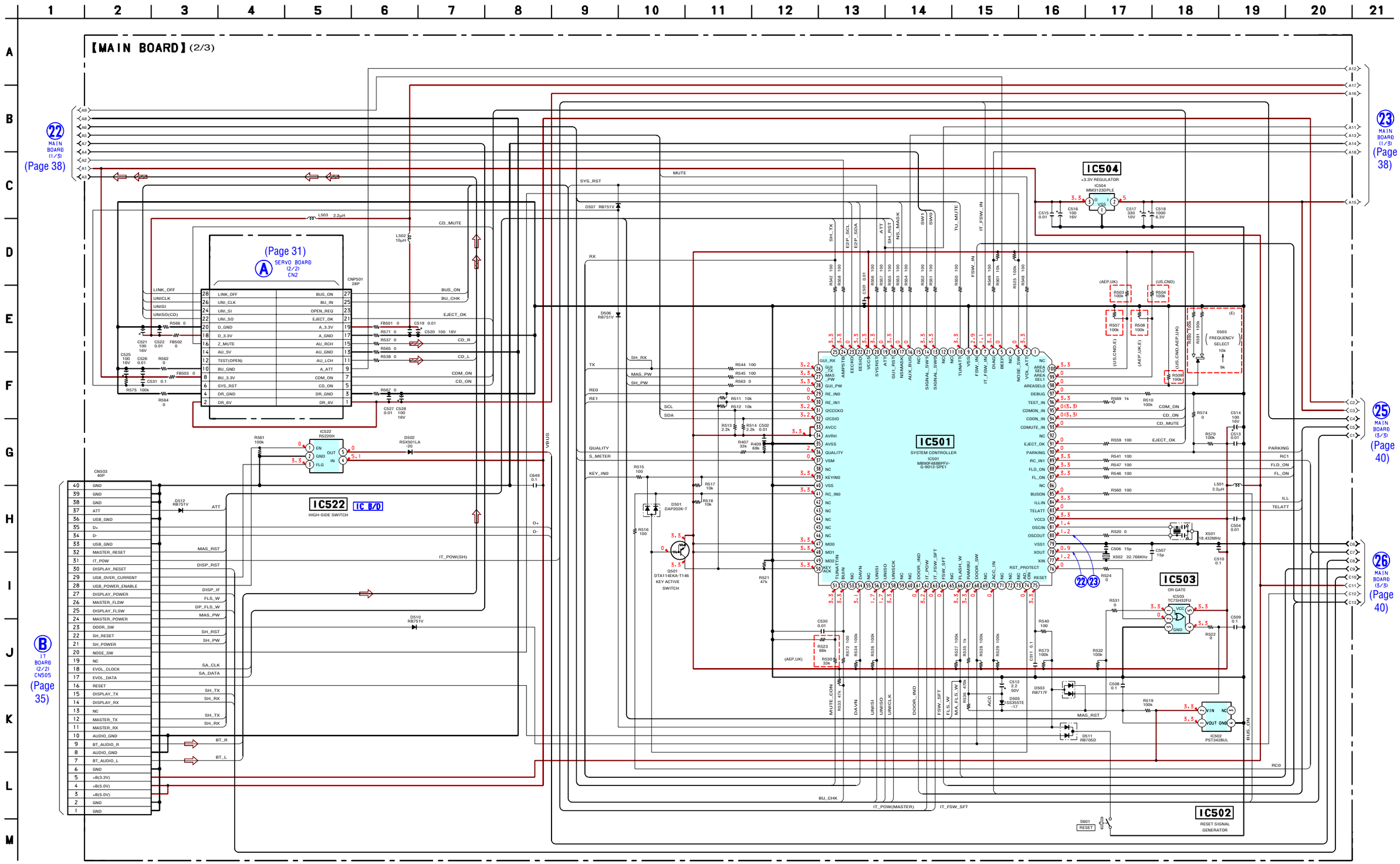
• See page 41 for Waveforms. • See page 47 for IC Block Diagrams.



Note: When MAIN board is replaced, the version up of the firmware is necessary. When performing the version up, refer to THE VERSION UP OF THE FIRMWARE in SERVICING NOTES.

5-15. SCHEMATIC DIAGRAM – MAIN Board (2/3) –

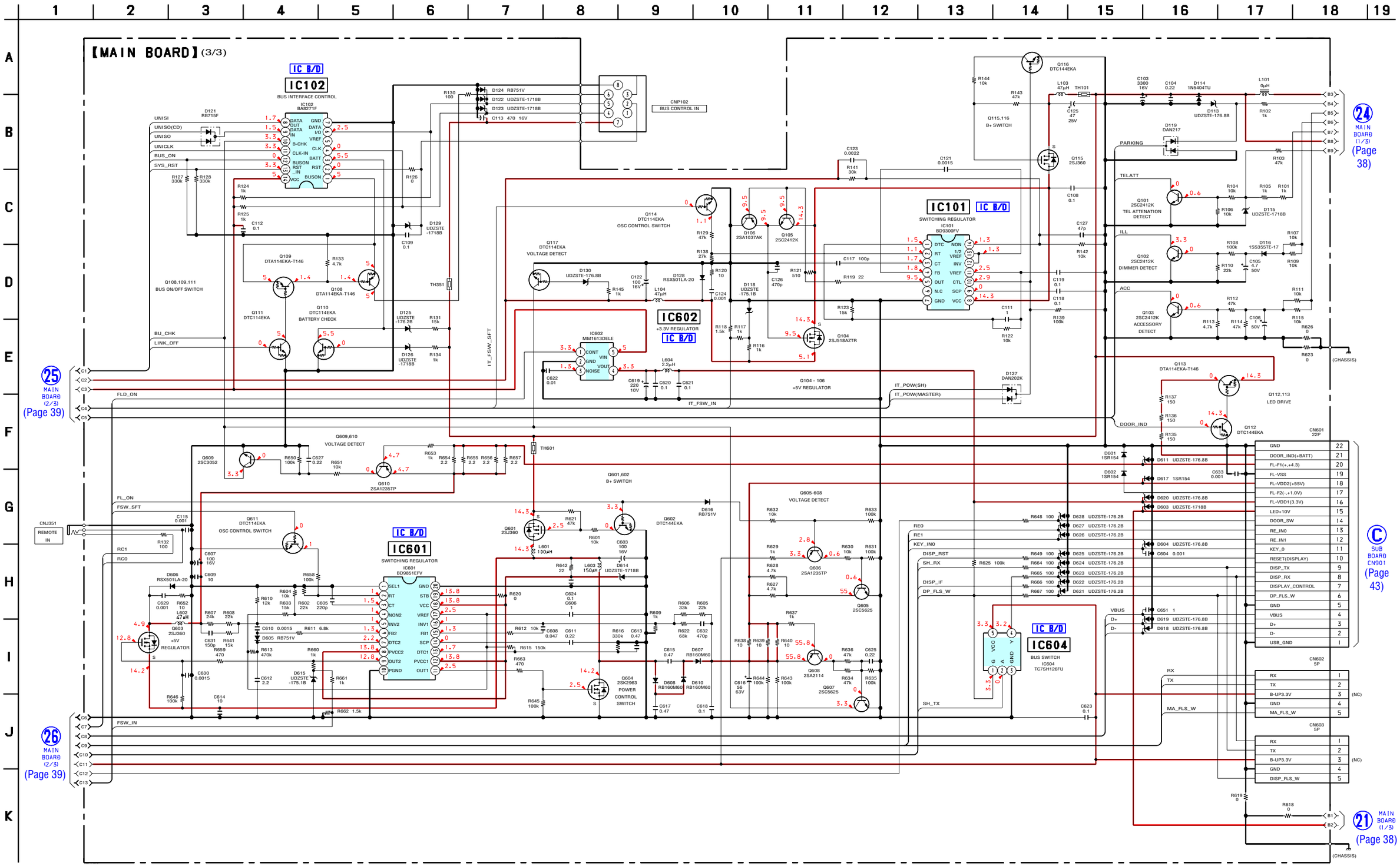
• See page 41 for Waveforms. • See page 47 for IC Block Diagrams. • See page 52 for IC Pin Function Description.



Note: When MAIN board or IC501 on the MIAN board are replaced, the version up of the firmware is necessary. When performing the version up, refer to THE VERSION UP OF THE FIRMWARE in SERVICING NOTES.

5-16. SCHEMATIC DIAGRAM – MAIN Board (3/3) –

• See page 47 for IC Block Diagrams.



Note: When MAIN board is replaced, the version up of the firmware is necessary. When performing the version up, refer to THE VERSION UP OF THE FIRMWARE in SERVICING NOTES.

• **Waveforms**

– SERVO Board –

① IC2 ⑤ (FEI)

Approx. 100 mVp-p

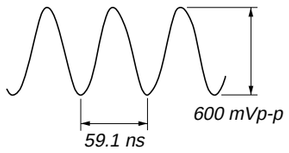
50 mV/DIV, 5 ms/DIV

② IC2 ⑥ (TEI)

Approx. 400 mVp-p

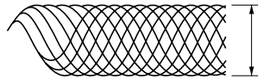
200 mV/DIV, 5 ms/DIV

③ IC2 ㉓ (XI)



200 mV/DIV, 20 ns/DIV

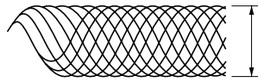
④ IC2 ㉛ (RFI)



Approx. 1 Vp-p

500 mV/DIV, 0.5 µs/DIV

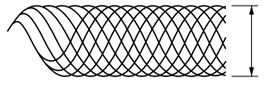
⑤ IC2 ㉞ (FNI2), ㉟ (FNI1)



1.5 Vp-p

500 mV/DIV, 0.5 µs/DIV

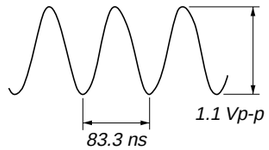
⑥ IC2 ㊱ (FPI2), ㊲ (FPI1)



1.5 Vp-p

500 mV/DIV, 0.5 µs/DIV

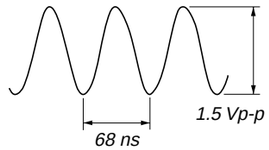
⑦ IC3 ㉛ (X1)



500 mV/DIV, 20 ns/DIV

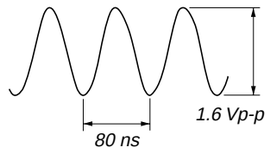
– IT Board –

⑪ IC506 ⑬ (XTAL1)



1 V/DIV, 50 ns/DIV

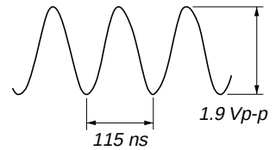
⑫ IC511 ⑱⑧ (EXTAL)



1 V/DIV, 50 ns/DIV

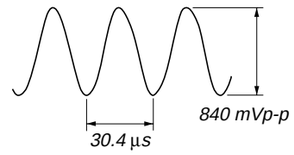
– MAIN Board –

㉑ IC401 ⑩ (XTO)



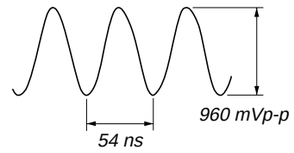
500 mV/DIV, 50 ns/DIV

㉒ IC501 ㊽ (XOUT)



500 mV/DIV, 20 µs/DIV

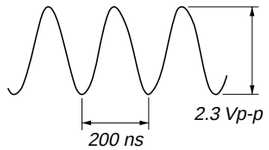
㉓ IC501 ㊵ (OSCOUT)



500 mV/DIV, 20 ns/DIV

– KEY Board –

㉛ IC704 ⑬ (X2)



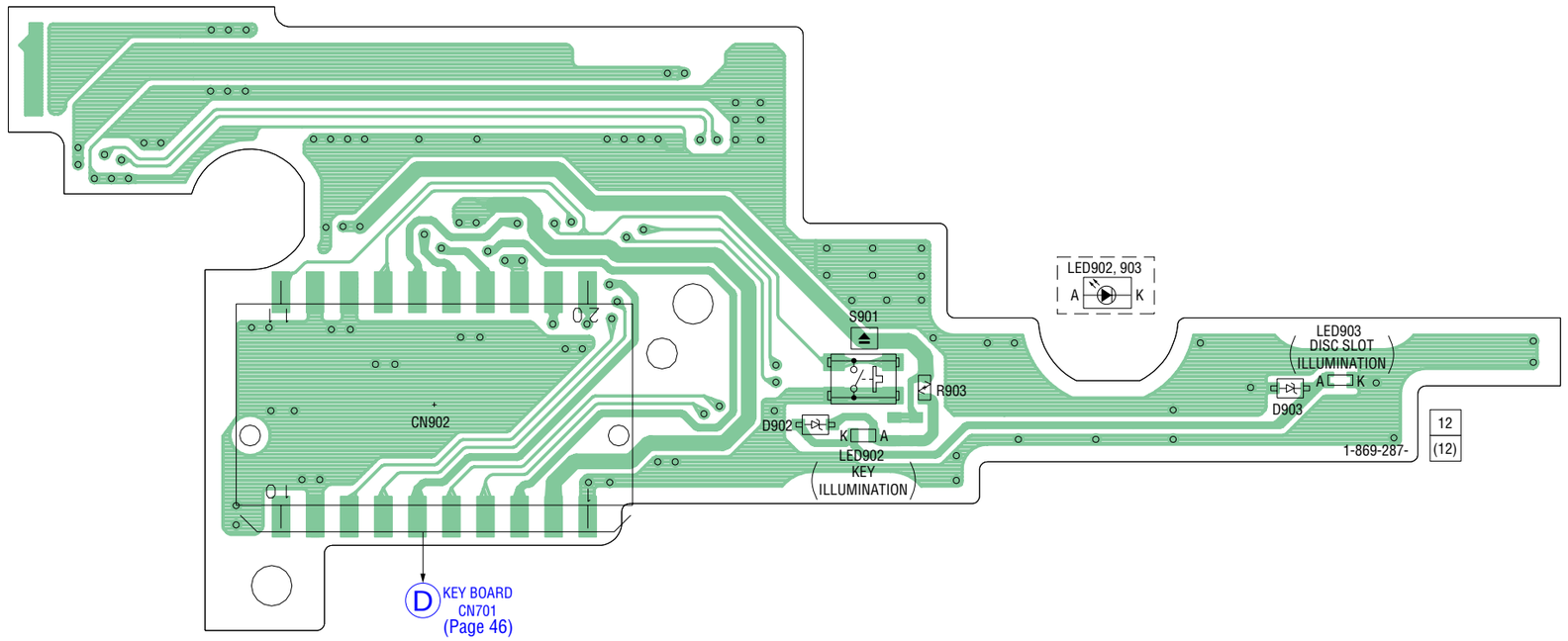
1 V/DIV, 100 ns/DIV

5-17. PRINTED WIRING BOARD – SUB Board –

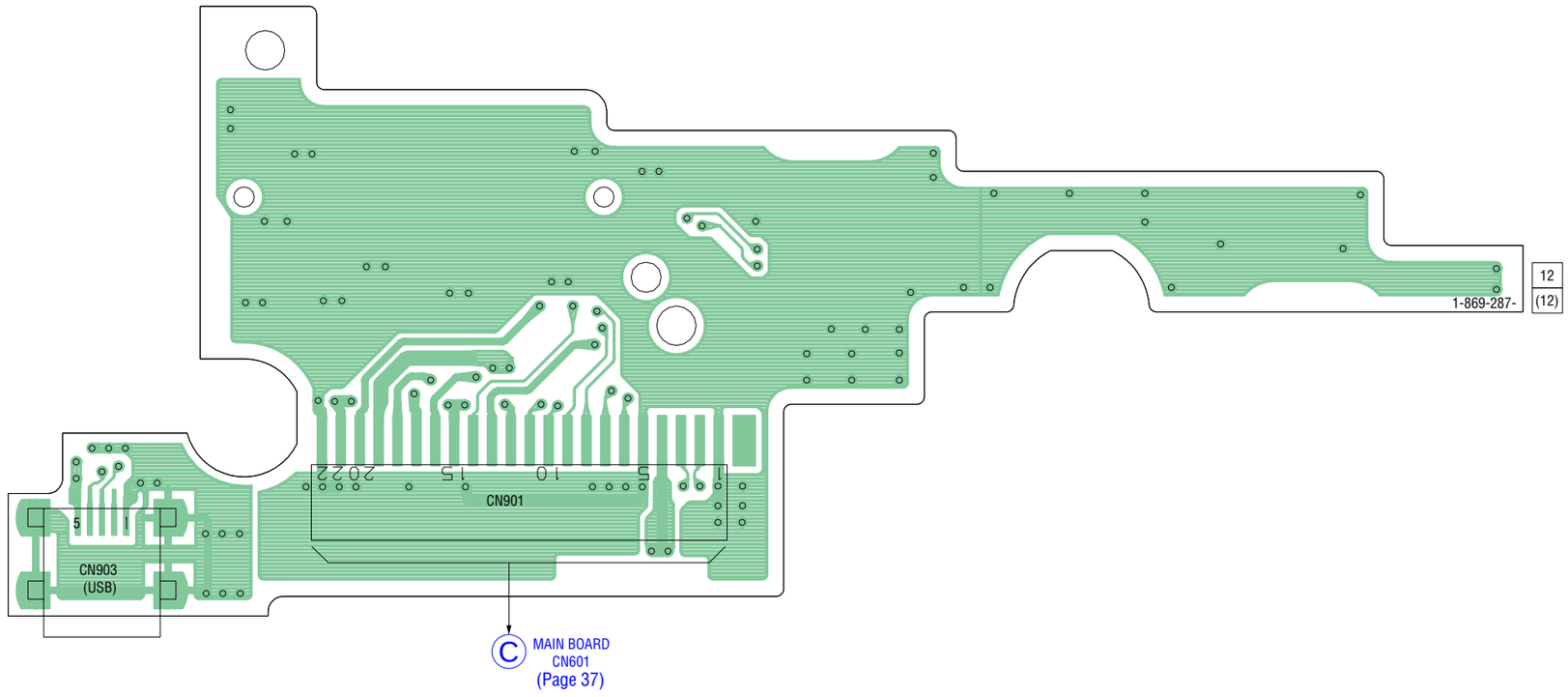
• See page 29 for Circuit Boards Location.

: Uses unleaded solder.

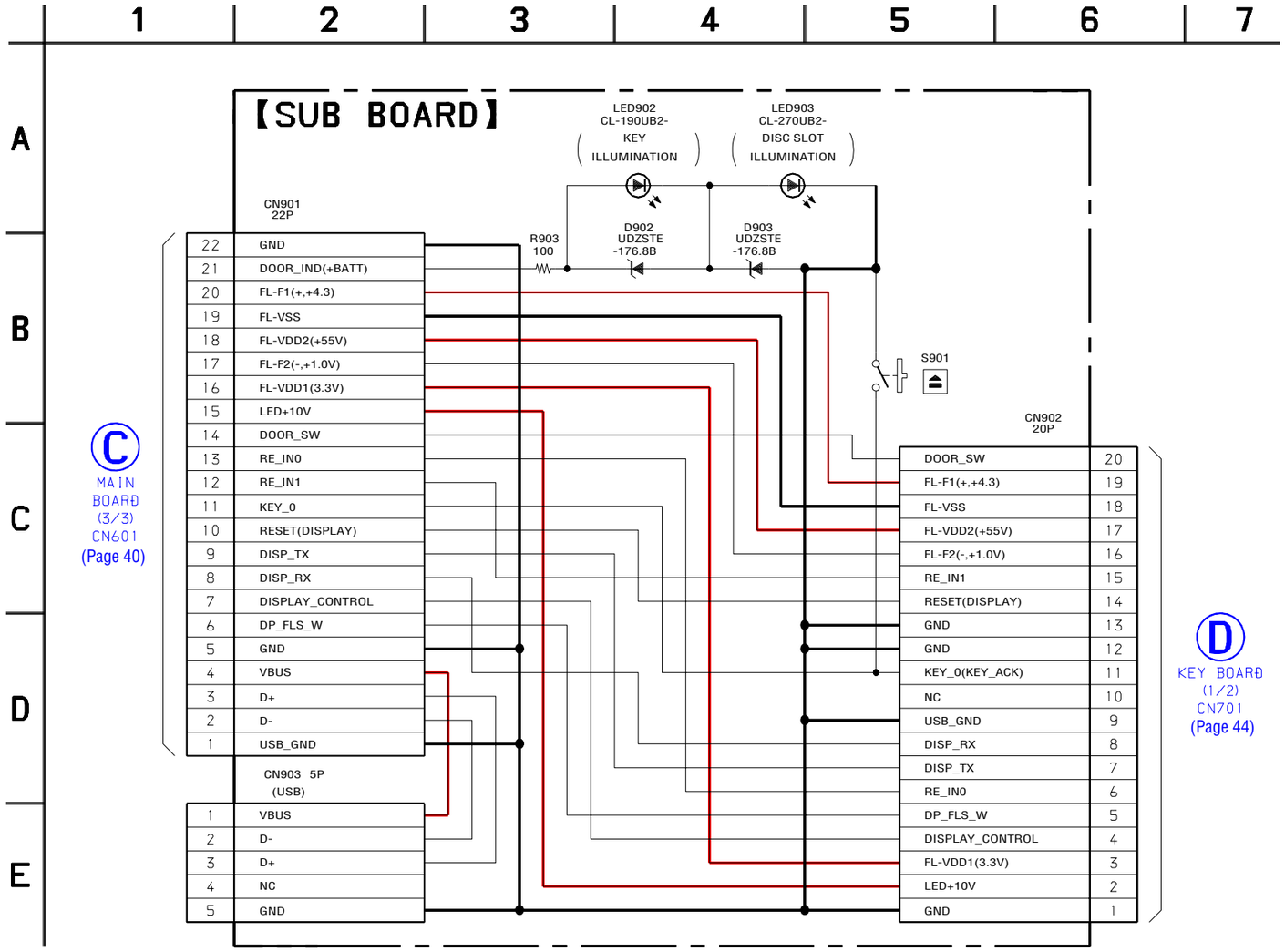
【SUB BOARD】(COMPONENT SIDE)



【SUB BOARD】(CONDUCTOR SIDE)

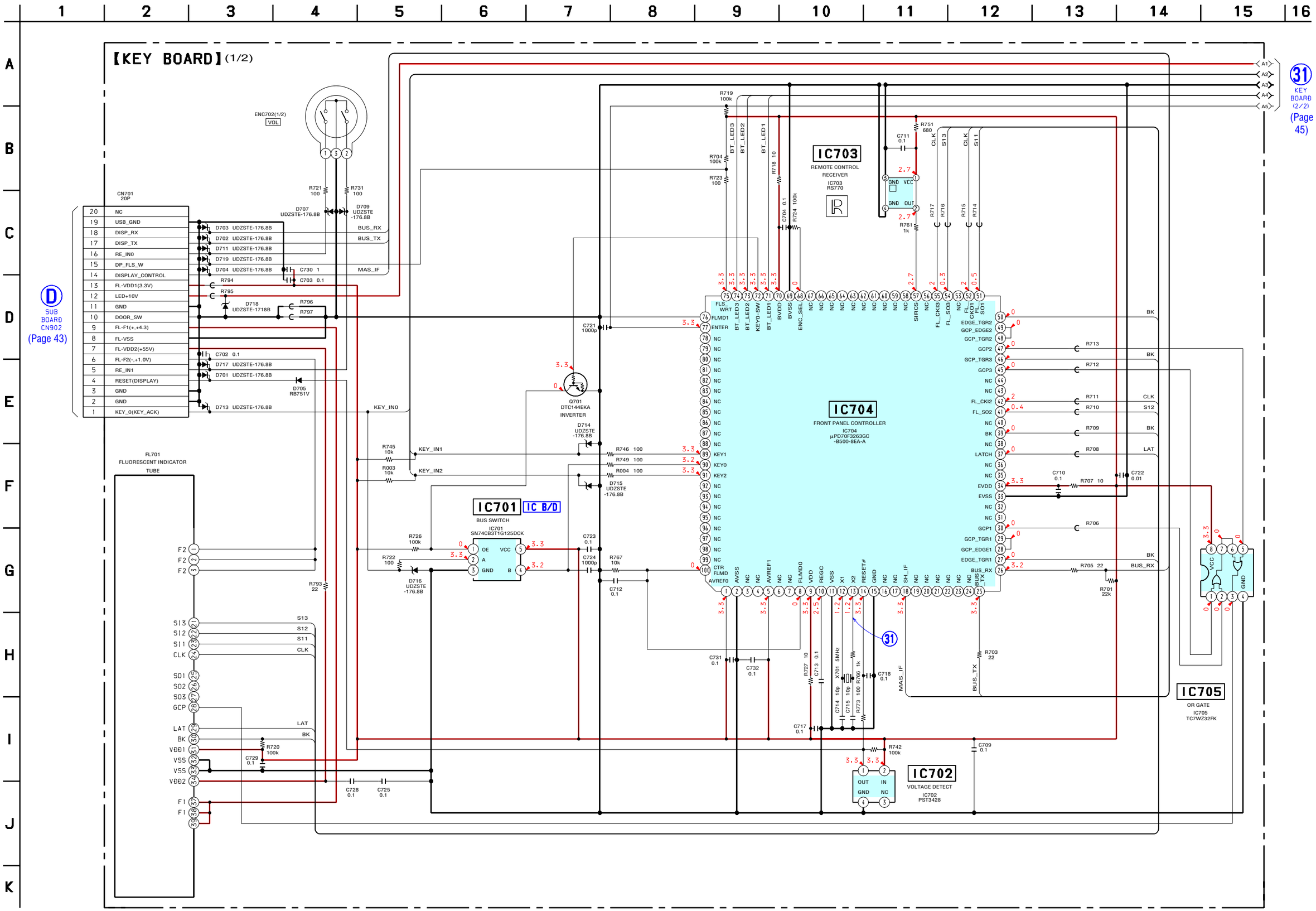


5-18. SCHEMATIC DIAGRAM – SUB Board –



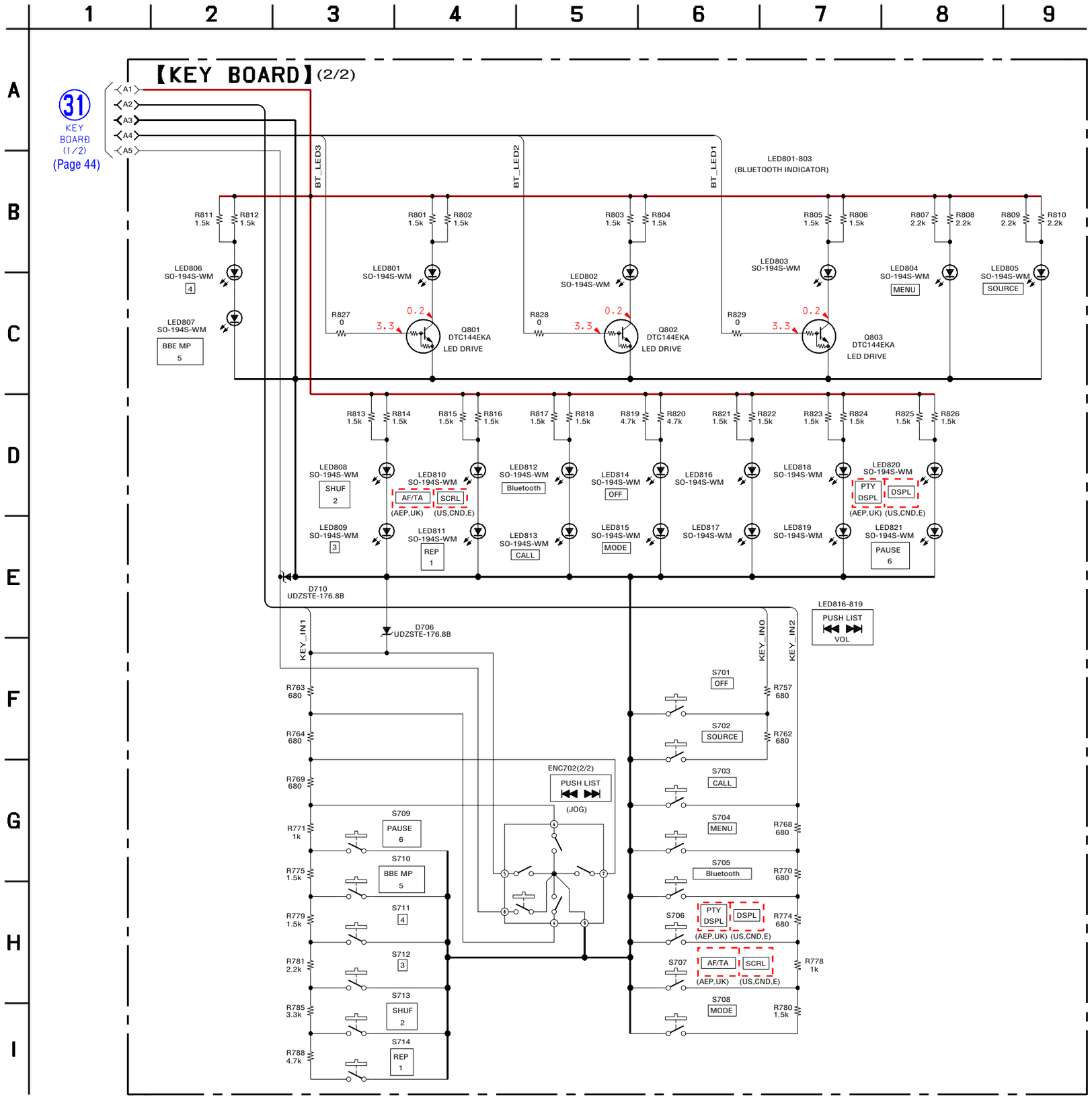
5-19. SCHEMATIC DIAGRAM – KEY Board (1/2) –

• See page 41 for Waveforms. • See page 47 for IC Block Diagrams. • See page 52 for IC Pin Function Description.



Note: When IC704 on the KEY board is replaced, the version up of the firmware is necessary. When performing the version up, refer to THE VERSION UP OF THE FIRMWARE in SERVICING NOTES.

5-20. SCHEMATIC DIAGRAM – KEY Board (2/2) –

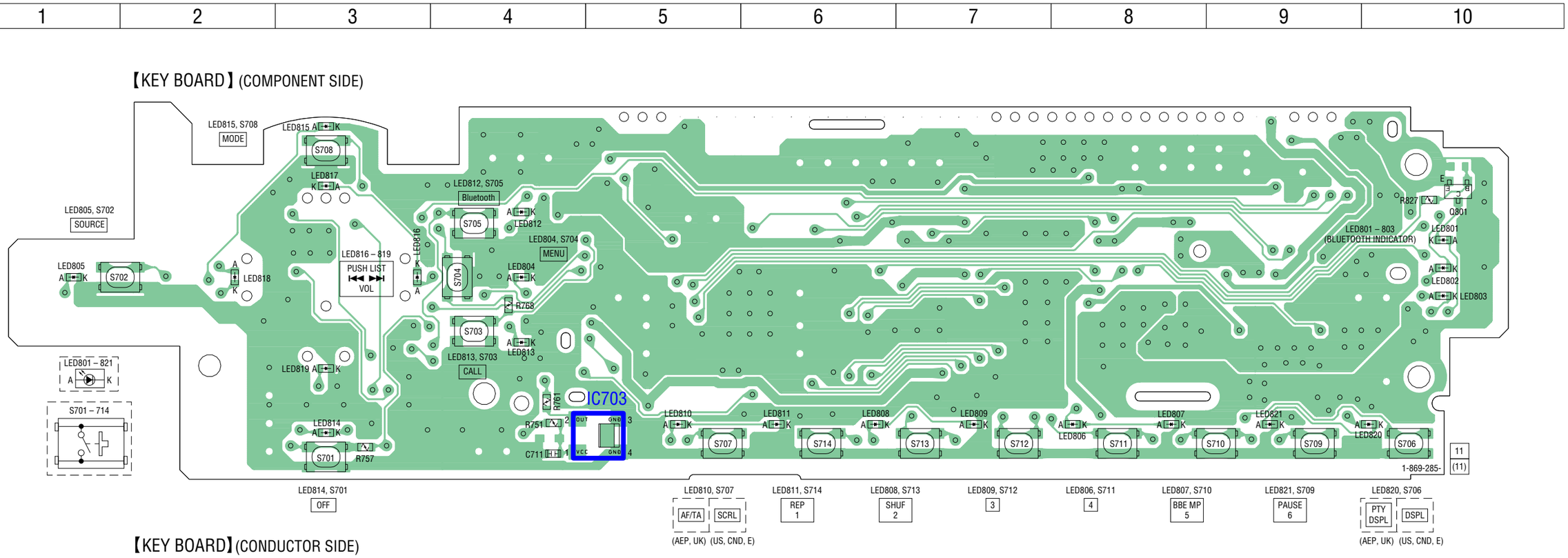


5-21. PRINTED WIRING BOARD – KEY Board –

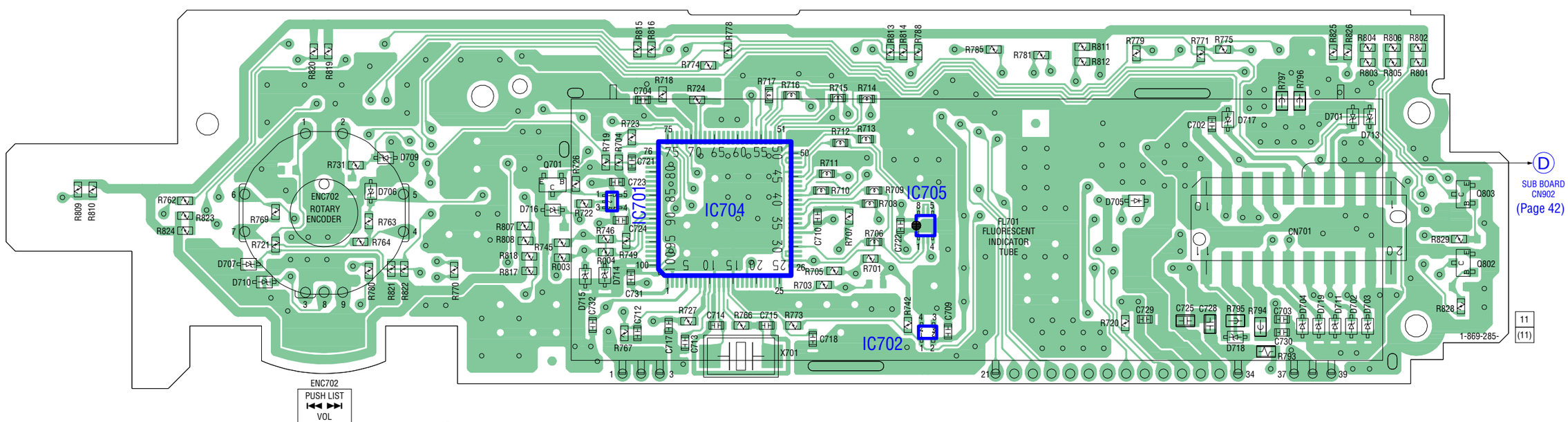
• See page 29 for Circuit Boards Location.

: Uses unleaded solder.

【KEY BOARD】(COMPONENT SIDE)



【KEY BOARD】(CONDUCTOR SIDE)



• **Semiconductor Location**

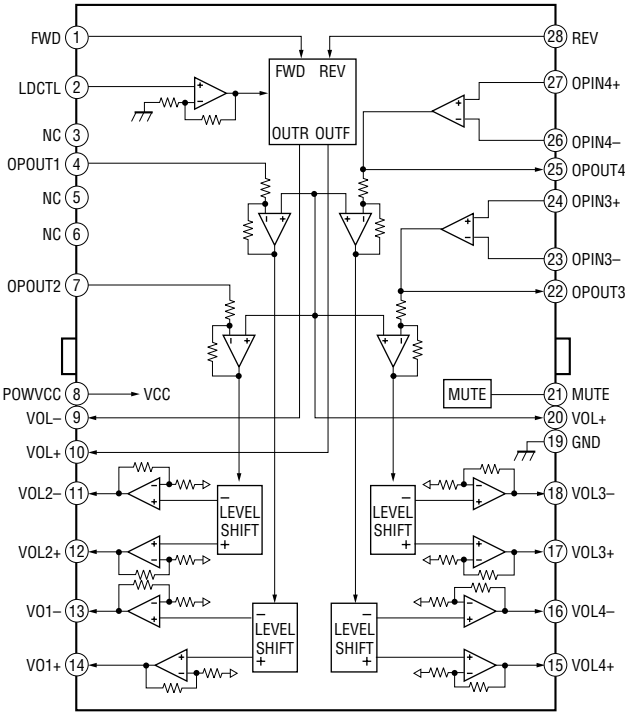
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D701	E-9	D709	E-3	D717	E-9	IC704	E-5	LED805	B-1	LED812	B-4	LED819	C-3	Q803	E-10
D702	F-9	D710	F-2	D718	F-9	IC705	E-7	LED806	C-8	LED813	C-4	LED820	C-10		
D703	F-10	D711	F-9	D719	F-9			LED807	C-8	LED814	C-3	LED821	C-9		
D704	F-9	D713	E-10			LED801	B-10	LED808	C-6	LED815	A-3				
D705	E-8	D714	F-5	IC701	E-5	LED802	B-10	LED809	C-7	LED816	B-3	Q701	E-4		
D706	E-3	D715	F-5	IC702	F-7	LED803	B-10	LED810	C-5	LED817	B-3	Q801	B-10		
D707	F-2	D716	E-4	IC703	C-5	LED804	B-4	LED811	C-6	LED818	B-2	Q802	F-10		

Note: When IC704 on the KEY board is replaced, the version up of the firmware is necessary. When performing the version up, refer to THE VERSION UP OF THE FIRMWARE in SERVICING NOTES.

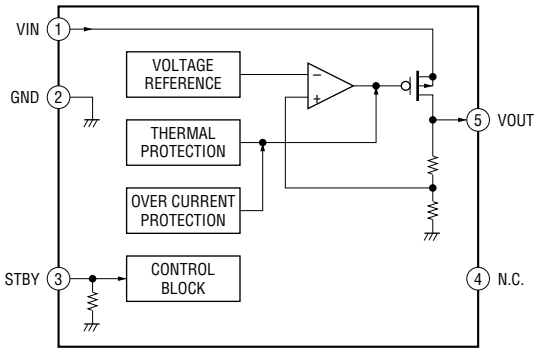
- **IC Block Diagrams**

– SERVO Board –

IC1 BA5968FP-E2

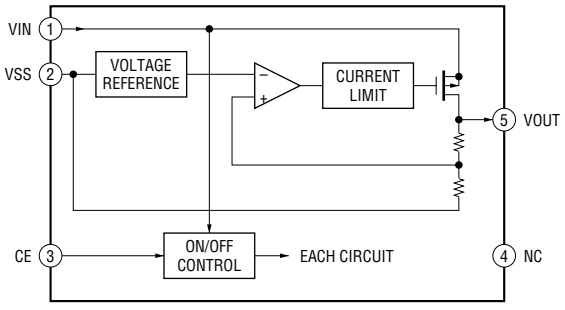


IC6 BH15LB1WG

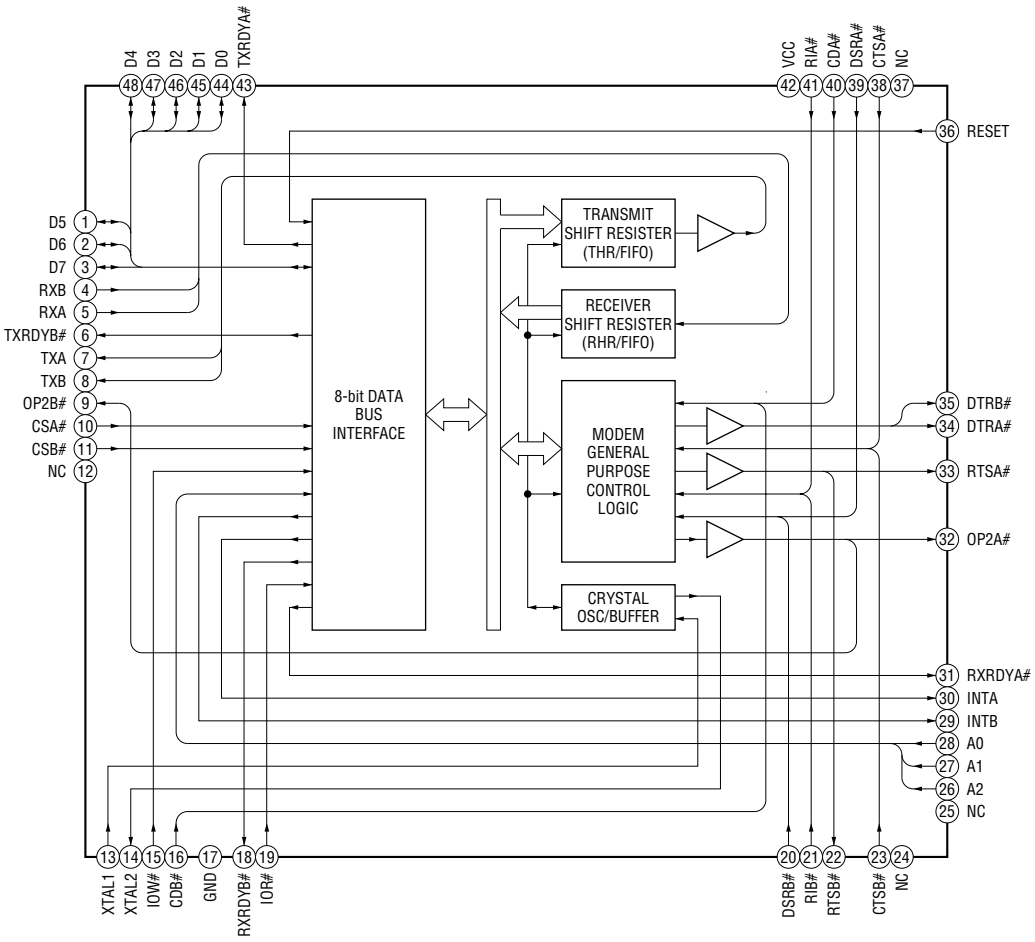


– IT Board –

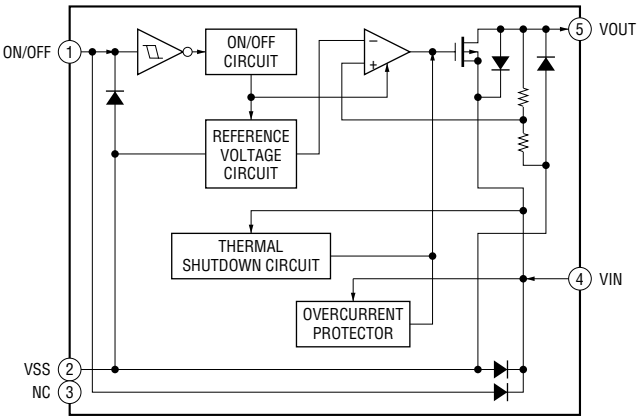
IC503 XC6219B332MR



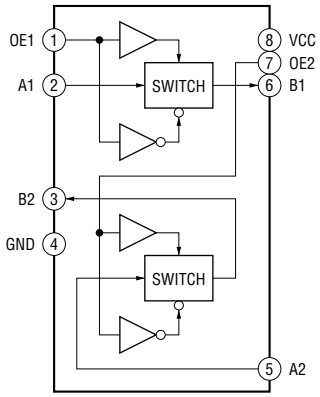
IC506 XR16L2550IM-F



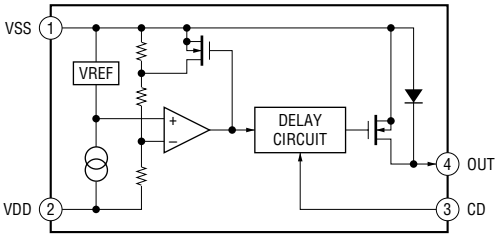
IC513 S-1170B19UC-OTETFG



IC516 TC7WBL126AFK

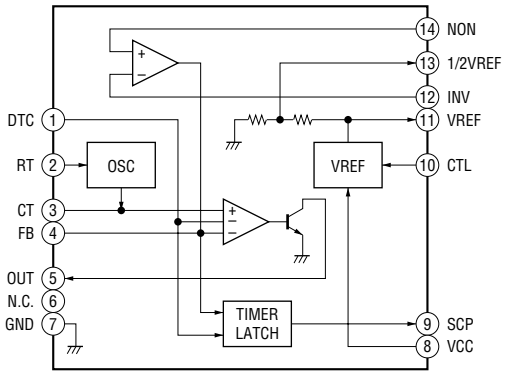


IC515, 517 S-80930CLNB-G60T2G

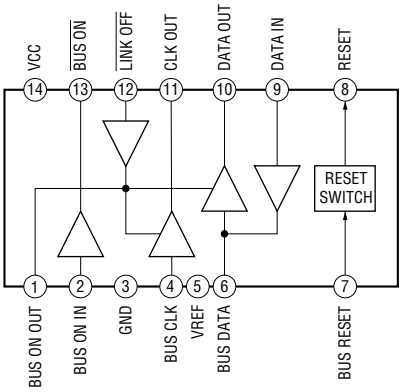


– MAIN Board –

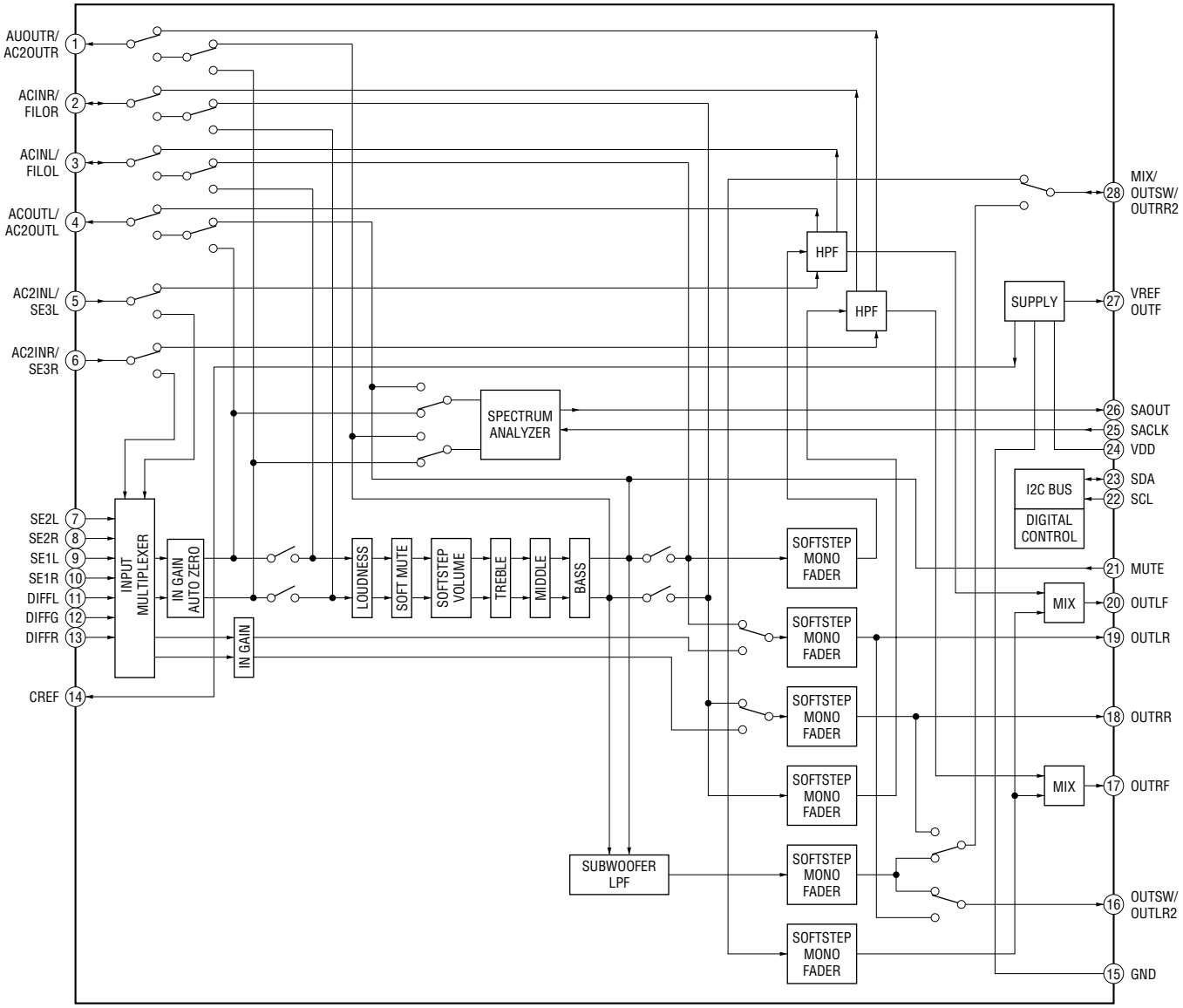
IC101 BD9300FV-FE2



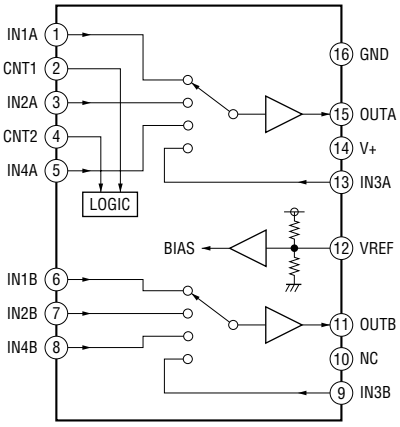
IC102 BA8271F-E2



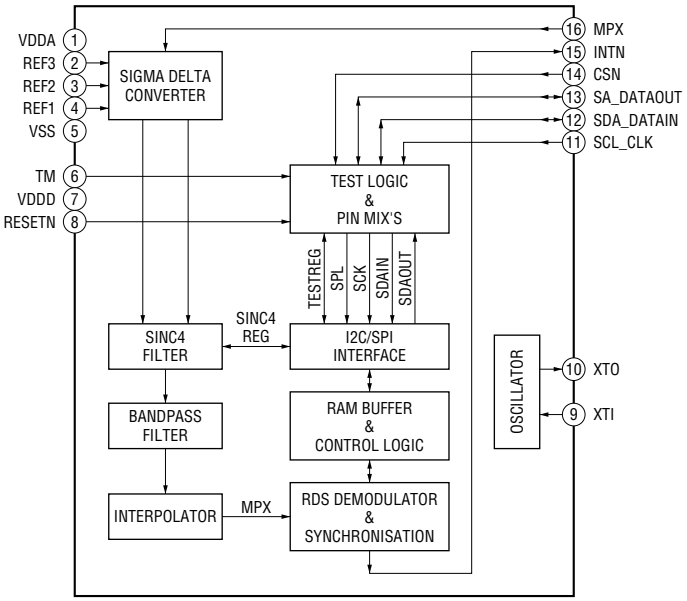
IC301 TDA7419TR



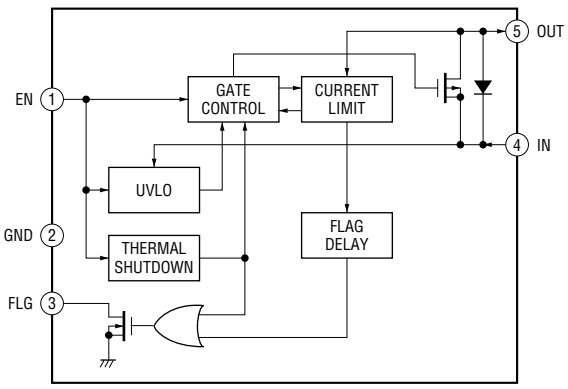
IC302 NJM2750M-TE2



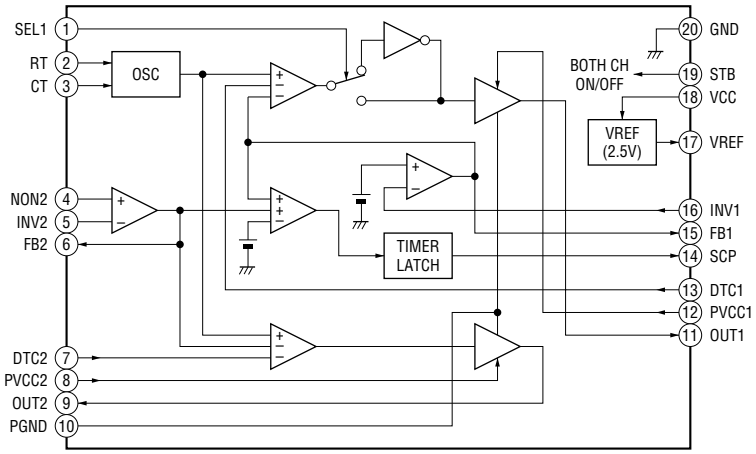
IC401 TDA7333013TR



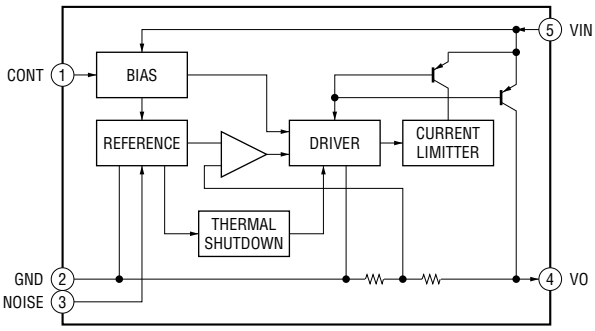
IC522 R5520H001B-T1-FB



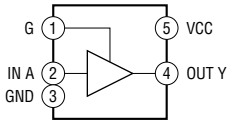
IC601 BD9851EFV-E2



IC602 MM1613DNLE

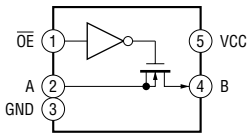


IC604 TC7SH126FU (T5RSOYF)



– KEY Board –

IC701 SN74CBT1G125DCK



- **IC Pin Function Description**

SERVO BOARD IC2 TC94A70FG-002 (RF AMP, DIGITAL SERVO, DIGITAL SIGNAL PROCESSOR)

Pin No.	Pin Name	I/O	Description
1	AVSS3	-	Ground terminal
2	RFZI	I	RF ripple zero crossing signal input terminal
3	RFRP	O	RF ripple signal output terminal
4	SBAD/RFDC/ ETE	O	Subbeam addition signal output/RF peak detecting phase signal output for hologram selection terminal Not used
5	FEI	I	Focus error signal input terminal Not used
6	TEI	I	Tracking error signal input terminal
7	TEZI	I	Tracking error signal zero crossing input terminal
8	AVDD3	-	Power supply terminal (+3.3 V)
9	FOO	O	Focus servo equalizer signal output terminal
10	TRO	O	Tracking servo equalizer signal output terminal
11	VREF	I	Reference voltage (+1.65V) input terminal
12	FMO	O	Feeding servo equalizer signal output terminal
13	DMO	O	Disc servo equalizer signal output terminal
14	VSSP3	-	Ground terminal
15	VCOI	I	DSP VCO control voltage input terminal
16	VDDP3	-	Power supply terminal (+3.3 V)
17	VDD1-1	-	Power supply terminal (+1.5 V)
18	VSS1-1	-	Ground terminal
19	FGIN	I	FG signal input terminal for CAV Not used
20, 21	IOO (/HSO), IOI (/UHSO)	-	Not used
22	XVSS3	-	Ground terminal
23	XI	I	System clock input terminal (16.9344 MHz)
24	XO	O	System clock output terminal (16.9344 MHz)
25	XVDD3	-	Power supply terminal (+3.3 V)
26	DVSS3-1	-	Ground terminal
27	RO	O	R channel data (positive) output terminal
28	DVDD3	-	Power supply terminal (+3.3 V)
29	DVR	I	Reference voltage (+1.65V) input terminal
30	LO	O	L channel data (positive) output terminal
31	DVSS3-2	-	Ground terminal
32	VDDT3-1	-	Power supply terminal (+3.3 V)
33	VSS1-2	-	Ground terminal
34	VDD1-2	-	Power supply terminal (+1.5 V)
35	VDDM1	-	Power supply terminal (+1.5 V)
36	MSTBY	I	S-RAM standby mode control signal input from the CD system control
37	/RST	I	Reset signal input from the CD system control
38 to 41	BUS0 to BUS3	I/O	Bus data input/output with the CD system control
42	BUCK (CLK)	I	Bus clock signal input from the CD system control
43	/CCE	I	Chip enable signal input from the CD system control
44	TEST	I	Setting terminal for test mode Normally fixed at "L"
45	IRQ	I	Interrupt request signal input terminal Not used
46, 47	AOUT3 (PO4), AOUT2 (PO5)	-	Not used
48	PIO0	O	Request signal output to the CD system control
49, 50	PIO1, PIO2	-	Not used

Pin No.	Pin Name	I/O	Description
51	PIO3	I	Muting on/off control signal input from the CD system control "L": mute
52	VSS1-3	-	Ground terminal
53	VDDT3-2	-	Power supply terminal (+3.3 V)
54	SBSY	-	Not used
55	SBOK/FOK	-	Not used
56	IPF	-	Not used
57	SFSY/LOCK	-	Not used
58	ZDET	O	Zero detection signal output to the CD system control
59	GPIN	-	Not used
60	MS	I	Microcomputer I/F mode selection signal input terminal "H": parallel 6-line type, "L": serial 3-line type
61	DOUT (PO6)	O	Digital output terminal Not used
62	AOUT (PO7)	O	Audio data output terminal Not used
63	BCK (PO8)	O	Bit clock signal (2.8224 MHz) output terminal for audio data output Not used
64	LRCK (PO9)	O	L/R sampling clock signal (44.1 kHz) output terminal for audio data output Not used
65	AIN (PI4)	I	Data input terminal for internal D/A converter Not used
66	BCKI (PI5)	I	Bit clock signal (2.8224 MHz) input terminal for internal D/A converter Not used
67	LRCKI (PI6)	I	L/R sampling clock signal (44.1 kHz) input terminal for internal D/A converter Not used
68	VDD1-3	-	Power supply terminal (+1.5 V)
69	VSS1-4	-	Ground terminal
70	AWRC	-	Not used
71	PVDD3	-	Power supply terminal (+3.3 V)
72	PDO	O	Phase error margin signal between EFM signal and PLCK signal output terminal
73	TMAXS	O	TMAX detection result output terminal Not used
74	TMAX	O	TMAX detection result output terminal
75	LPFN	I	Inverted signal input from the operation amplifier for PLL loop filter
76	LPFO	O	Signal output from the operation amplifier for PLL loop filter
77	PVREF	I	Reference voltage (+1.65V) input terminal
78	VCOF	O	Terminal for VCO filter
79	PVSS3	-	Ground terminal
80	SLCO	O	EFM slice level output terminal
81	RFI	I	RF signal input terminal
82	RFRPI	I	RF ripple signal input terminal
83	RFEQO	O	EFM slice level output terminal
84	VRO	O	Reference voltage (+1.65V) output terminal
85	RESIN	O	Resistance connection terminal for standard voltage generation
86	VMDIR	O	Reference voltage (+1.65V) output terminal for APC circuit
87	TESTR	O	Low-pass filter terminal for RFEQO offset correction
88	AGCI	I	RF signal amplitude adjustment amplification input terminal
89	RFO	O	RF signal generation amplification output terminal
90	RVDD3	-	Power supply terminal (+3.3 V)
91	LDO	O	Laser diode amplification output terminal
92	MDI	I	Monitor photo diode amplification input terminal
93	RVSS3	-	Ground terminal
94	FNI2	I	Main beam input terminal (Connect with pin diode C)
95	FNI1	I	Main beam input terminal (Connect with pin diode A)
96	FPI2	I	Main beam input terminal (Connect with pin diode D)

Pin No.	Pin Name	I/O	Description
97	FPI1	I	Main beam input terminal (Connect with pin diode B)
98	TPI	I	Sub beam amplification input terminal (Connect with pin diode F)
99	TNPC	-	Not used
100	TNI	I	Sub beam amplification input terminal (Connect with pin diode E)

SERVO BOARD IC3 MB90486BPFV-G-177E1 (CD SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Description
1	CDON_1500MV	O	Servo 1.5 V power supply control signal output terminal
2 to 5	NC	-	Not used
6	DRVON	O	Motor drive muting on/off control signal output terminal
7, 8	CD_BUS0, CD_BUS1	I/O	Bus data input/output with the RF amplifier
9	VSS	-	Ground terminal
10, 11	CD_BUS2, CD_BUS3	I/O	Bus data input/output with the RF amplifier
12	CD_BUCK	O	Bus clock signal output to the RF amplifier
13	CD_XCCE	O	Chip enable signal output to the RF amplifier
14	CD_XRST	O	Reset signal output to the RF amplifier
15	CD_ZDET	I	Zero detection signal input from the RF amplifier
16 to 20	NC	-	Not used
21	VCC	-	Power supply terminal (+3.3 V)
22	DAC_ZDETL	I	Zero data detection signal input terminal (L-ch) Not used
23	DAC_ZDETR	I	Zero data detection signal input terminal (R-ch) Not used
24	NC	-	Not used
25	RXD	I	Serial data input from the SONY bus interface IC
26	TXD	O	Serial data output to the SONY bus interface IC
27	DEC_SSTBY	O	S-RAM standby mode control signal output to the RF amplifier
28, 29	NC	-	Not used
30	DEC_INT	I	Request signal input from the RF amplifier
31, 32	NC	-	Not used
33	AVCC	-	Power supply terminal (+3.3 V) for A/D converter
34	AVRH	-	External reference voltage for A/D converter
35	AVSS	-	Ground terminal
36	NC	-	Not used
37	DEC_XMUTE	O	Muting on/off control signal output to the RF amplifier "L": mute
38, 39	NC	-	Not used
40	VSS	-	Ground terminal
41	NC	-	Not used
42	MEC_LIMIT	I	Sled limit in detection switch signal input terminal
43	MEC_LOAD	O	Loading motor signal output to the coil/motor drive (Load direction)
44	MEC_EJECT	O	Loading motor signal output to the coil/motor drive (Eject direction)
45	MEC_INSW	I	Pack-in detection signal input terminal
46	MEC_DSW	I	Chucking end detection switch signal input terminal
47 to 49	MD0 to MD2	I	CPU operation mode setting terminal
50	$\overline{\text{BUS\_ON}}$	I	SONY bus on/off control signal input terminal "L": bus on
51	BU_IN	I	Back up power supply detection signal input terminal "L" is input at low voltage
52	NC	I	Not used
53	$\overline{\text{MEC\_SELFSW}}$	I	Disc insert detection switch signal input terminal "L": disc in interruption
54, 55	NC	-	Not used
56	UNISI	I	Serial data input from the SONY bus interface IC
57	UNISO	O	Serial data output to the SONY bus interface IC
58	UNICKI	I	Serial data transfer clock signal input from the system controller
59	LINKOFF	O	Line off signal output terminal

Pin No.	Pin Name	I/O	Description
60	A_ATT	O	Muting on/off control signal output terminal
61	XFLASH & EJECT_OK	I	CD eject OK signal input from the system controller
62	OPEN_REQ	O	Front panel open/close request signal output terminal Not used
63	MECON	O	Mechanism deck power supply on/off control signal output terminal
64	CDON	O	CD servo power supply detection output terminal
65	XUART	I	Sony-bus/MC-bus change signal input terminal Not used
66	ZMUTE	O	Muting on/off control signal output to the system controller
67	MECON_CHK	I	CD mecha +6V power rising detection signal input
68	CDON_CHK	I	CD servo +3.3V power rising detection signal input terminal
69 to 74	NC	-	Not used
75	$\overline{\text{RSTX}}$	I	System reset signal input terminal
76	NC	-	Not used
77	X1A	O	Sub system clock output terminal Not used
78	X0A	I	Sub system clock input terminal Not used
79	VSS	-	Ground terminal
80	X0	I	Main system clock input terminal (12 MHz)
81	X1	O	Main system clock output terminal (12 MHz)
82	VCC	-	Power supply terminal (+3.3 V)
83	XWD	I	Not used
84	XINIT3	I	Not used
85	NC	-	Not used
86	XSJIG	I	Not used
87 to 89	XINIT0 to 2	I	Not used
90 to 96	NC	-	Not used
97	XDES	I	Destination setting terminal
98	XLINE	I	Not used
99, 100	NC	-	Not used

IT BOARD IC511 HD6417727F100CV (BLUETOOTH CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	VCC-RTC	-	Power supply terminal (+1.9V)
2	XTAL2	I	System clock input terminal for internal real time clock Not used
3	EXTAL2	O	System clock output terminal for internal real time clock Not used
4	VSS-RTC	-	Ground terminal
5, 6	MD1, MD2	I	Setting terminal for the clock mode
7	NMI	I	Non-maskable interrupt input terminal Fixed at "H" in this set
8	IRQ0	I	Interrupt request signal input terminal Not used
9, 10	UART_INTA, UART_INTB	I	Interrupt request signal input from the data bus interface
11, 12	IRQ3, IRQ4	I	Interrupt request signal input terminal Not used
13	VEPWC	O	Not used
14	VCPWC	O	Not used
15	MD5	I	Setting terminal for the endian
16	BREQ	I	Bus request signal input terminal Not used
17	BACK	O	Bus acknowledge signal output terminal Not used
18	VSSQ	-	Ground terminal
19	SD_CLK	O	Serial data transfer clock signal output to the data bus interface
20	VCCQ	-	Power supply terminal (+3.3V)
21 to 28	D31 to D24	I/O	Two-way data bus with the SD-RAM
29	VSSQ	-	Ground terminal
30	D23	I/O	Two-way data bus with the SD-RAM
31	VCCQ	-	Power supply terminal (+3.3V)
32 to 34	D22to D20	I/O	Two-way data bus with the SD-RAM
35	VSS	-	Ground terminal
36	D19	I/O	Two-way data bus with the SD-RAM
37	VCC	-	Power supply terminal (+1.9V)
38 to 40	D18 to D16	I/O	Two-way data bus with the SD-RAM
41	D15	I/O	Two-way data bus with the SD-RAM and flash ROM
42	VSSQ	-	Ground terminal
43	D14	I/O	Two-way data bus with the SD-RAM and flash ROM
44	VCCQ	-	Power supply terminal (+3.3V)
45 to 50	D13 to D8	I/O	Two-way data bus with the SD-RAM and flash ROM
51, 52	D7, D6	I/O	Two-way data bus with the SD-RAM, flash ROM and data bus interface
53	VSSQ	-	Ground terminal
54	D5	I/O	Two-way data bus with the SD-RAM, flash ROM and data bus interface
55	VCCQ	-	Power supply terminal (+3.3V)
56 to 60	D4 to D0	I/O	Two-way data bus with the SD-RAM, flash ROM and data bus interface
61	A0	O	Address signal output to the data bus interface
62	A1	O	Address signal output to the flash ROM and data bus interface
63	A2	O	Address signal output to the SD-RAM, flash ROM and data bus interface
64	VSSQ	-	Ground terminal
65	A3	O	Address signal output to the SD-RAM and flash ROM
66	VCCQ	-	Power supply terminal (+3.3V)
67 to 74	A4 to A11	O	Address signal output to the SD-RAM and flash ROM
75	VSSQ	-	Ground terminal
76	A12	O	Address signal output to the SD-RAM and flash ROM

Pin No.	Pin Name	I/O	Description
77	VCCQ	-	Power supply terminal (+3.3V)
78, 79	A13, A14	O	Address signal output to the SD-RAM and flash ROM
80 to 85	A15 to A20	O	Address signal output to the flash ROM
86	VSSQ	-	Ground terminal
87	A21	O	Address signal output to the flash ROM
88	VCCQ	-	Power supply terminal (+3.3V)
89, 90	A22, A23	O	Address signal output terminal Not used
91	VSS	-	Ground terminal
92	A24	O	Address signal output terminal Not used
93	VCC	-	Power supply terminal (+1.9V)
94	A25	O	Address signal output terminal Not used
95	PTK4	-	Not used
96	RD	O	Read strobe signal output to the flash ROM and data bus interface
97	DQMLL	O	Write mask signal output to the SD-RAM and data bus interface
98	DQMLU	O	Write mask signal output to the SD-RAM and flash ROM
99	DQMUL	O	Write mask signal output to the SD-RAM
100	VSSQ	-	Ground terminal
101	DQMUU	O	Write mask signal output to the SD-RAM
102	VCCQ	-	Power supply terminal (+3.3V)
103	RD/WR	O	Read/write signal output to the SD-RAM
104	PTE7	-	Not used
105	NOR_CS	O	Chip select signal output to the flash ROM
106	CS2	O	Chip select signal output terminal Not used
107	SD_CS	O	Chip select signal output to the SD-RAM
108	CSA	O	Chip select signal output to the data bus interface
109	PTK3	-	Not used
110	CSB	O	Chip select signal output to the data bus interface
111	EVOL_CLK	O	Serial data transfer clock signal output to the audio select
112	MAS_RST	O	System reset signal output to the system controller "L": reset
113	SELF_PRCT	O	Power on/off control signal output terminal for the bluetooth section
114	DISP_RST	O	System reset signal output to the front panel controller "L": reset
115	VSSQ	-	Ground terminal
116	TXDPLS	-	Not used
117	VCCQ	-	Power supply terminal (+3.3V)
118	MAS_PW	I	State notification signal input from the system controller "H": state that can be communicated
119	DOOR_SW	I	Shutter of front panel open/close detection input terminal Can not disc eject when input "H" "L": Shutter is open
120	ATT	I	Muting on/off control signal input terminal
121	TXDMNS	-	Not used
122	USB1D_ SUSPEND	-	Not used
123	USB1_OVR_ CRNT	I	Over current detection signal input terminal for USB power supply section
124	USB2_OVR_ CRNT	I	Over current detection signal input terminal Not used
125	USB1DTXEL	-	Not used
126	USB1PWREN	O	Power on/off control signal output terminal for the USB power supply section
127	USB2PWREN	O	Power on/off control signal output terminal Not used

Pin No.	Pin Name	I/O	Description
128	SD_CKE	O	Clock enable signal output to the SD-RAM
129	SD_RAS	O	Row address strobe signal output to the SD-RAM
130	PTJ1	-	Not used
131	SD_CAS	O	Column address strobe signal output to the SD-RAM
132	VSSQ	-	Ground terminal
133	PTJ3	-	Not used
134	VCCQ	-	Power supply terminal (+3.3V)
135, 136	PTJ4, PTJ5	-	Not used
137	VSS	-	Ground terminal
138	SH_PW	O	State notification signal output to the system controller "H": state that can be communicated
139	VCC	-	Power supply terminal (+1.9V)
140	DISP_PW	O	Communication interface signal output to the front panel controller
141	MAS_FLSW	O	Flash writing mode detection signal output to the system controller
142	DISP_FLSW	O	Flash writing mode detection signal output to the front panel controller
143	TDO	O	Data output terminal for JTAG
144	DRAK0	-	Not used
145	DACK	-	Not used
146	WAIT	I	Hardware wait request signal input terminal Not used
147	RESETM	I	Manual reset request signal input terminal Not used
148	ADTRG	-	Not used
149	PTG0	-	Not used
150	ASEMD0	I	ASE mode setting terminal for JTAG Normally fixed at "H"
151	ASEBRKAK	O	ASE break acknowledge signal output terminal for JTAG
152	PTG4	-	Not used
153	AUDATA3	-	Not used
154	AUDATA2	-	Not used
155	VSS	-	Ground terminal
156	AUDATA1	-	Not used
157	VCC	-	Power supply terminal (+1.9V)
158	AUDATA0	-	Not used
159	VSSQ	-	Ground terminal
160	TRST	I	Reset signal input terminal for JTAG
161	VCCQ	-	Power supply terminal (+3.3V)
162	TMS	I	Test mode control input terminal for JTAG
163	TDI	I	Data input terminal for JTAG
164	TCK	I	Clock input terminal for JTAG
165	RESERVED	-	Not used
166	TXRDYB	I	Ready signal input from the data bus interface
167	RXRDYB	I	Ready signal input from the data bus interface
168	MODEL_SW	I	The bluetooth module enable/diable detection input terminal fixed at "H" in this set
169	MD0	I	Setting terminal for the clock mode
170	VCC-PLL1	-	Power supply terminal (+1.9V)
171	CAP1	-	Not used
172, 173	VSS	-	Ground terminal
174	CAP2	-	Not used
175	VCC-PLL2	-	Power supply terminal (+1.9V)
176	SH_FLSW	I	Flash writing mode detection signal input terminal for debug mode

Pin No.	Pin Name	I/O	Description
177	VSS	-	Ground terminal
178	VCC	-	Power supply terminal (+1.9V)
179	XTAL	I	System clock input terminal (12.5 MHz)
180	EXTAL	O	System clock output terminal 12.5 MHz)
181	TXRDYA	I	Ready signal input from the data bus interface
182	PINT9	-	Not used
183	PINT	-	Not used
184	PTM0	-	Not used
185	BT_RST	O	System reset signal output to the bluetooth module
186	MISO	O	Serial data output to the bluetooth module
187	PTH7	-	Not used
188	VSSQ	-	Ground terminal
189	CKIO	-	Not used
190	VCCQ	-	Power supply terminal (+3.3V)
191	SH_UART_TX	O	Serial data output terminal for debug mode
192	SCK0	-	Not used
193	TXD_SIO	-	Not used
194	SIOMCLK	-	Not used
195	MAS_TX	O	Serial data output to the system controller
196	SCK_SIO	-	Not used
197	SIOFSYNC	-	Not used
198	SH_UART_RX	I	Serial data input terminal for debug mode
199	RXD_SIO	-	Not used
200	VSS	-	Ground terminal
201	MAS_RX	I	Serial data input from the system controller
202	VCC	-	Power supply terminal (+1.9V)
203	SCPT7	-	Not used
204	SPICLK	O	Serial data transfer clock signal output to the bluetooth module
205	SPICS	O	Chip select signal output to the bluetooth module
206	MOSI	I	Serial data input from the bluetooth module
207	VSSQ	-	Ground terminal
208	LCD8	-	Not used
209	VCCQ	-	Power supply terminal (+3.3V)
210 to 217	LCD7 to LCD0	-	Not used
218	RXRDYA	I	Ready signal input from the data bus interface
219	LCLK	I	System clock input terminal for USB (48 MHz)
220	RESETP	I	System reset signal input from the system controller "L": reset
221	CA	-	Not used
222, 223	MD3, MD4	I	Setting terminal for width of bus for area 0 (16 bit)
224	SCAN_TESTEN	-	Not used
225	AVCC-USB	-	Power supply terminal (+3.3V)
226	USB_D+	I/O	Two-way data bus of USB data (+)
227	USB_D-	I/O	Two-way data bus of USB data (-)
228	AVSS-USB	-	Ground terminal
229	USB2_P	-	Not used
230	USB2_M	-	Not used
231	AVCC-USB	-	Power supply terminal (+3.3V)
232	AVSS	-	Ground terminal

Pin No.	Pin Name	I/O	Description
233	EVOL_DATA	I	Serial data input terminal from the audio select
234 to 236	AN3 to AN5	-	Not used
237	AVCC	-	Power supply terminal (+3.3V)
238, 239	AN5, AN7	-	Not used
240	AVSS	-	Ground terminal

MAIN BOARD IC501 MB90F488BPFV-G-9012-SPE1 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	NC	-	Not used
2	VOL_ATT	O	Muting on/off control signal output to the audio select "L": muting on
3	NOSE_SW	I	Front panel remove/attach detection signal input terminal "L": front panel is attached
4	NC	-	Not used
5	BEEP	O	Beep sound drive signal output terminal
6	DIAG	I	Diagnostic signal input from the power amplifier IC
7	IT_FSW_IN	I	DC/DC converter oscillation frequency count input terminal for bluetooth section
8	FSW_IN	I	DC/DC converter oscillation frequency count input terminal for fluorescent indicator tube section
9	VSS	-	Ground terminal
10	TUNATT	O	Tuner muting on/off control signal output terminal
11, 12	NC	-	Not used
13, 14	SIGNAL_SW0, SIGNAL_SW1	O	Audio signal output select signal output terminal
15	NC	-	Not used
16	AUX_BUS	O	Ground switching signal output of SONY bus/AUX audio input "L": AUX input, "H": SONY bus input
17	NSMASK	O	Discharge control signal output for the noise detection circuit "H": discharge (AEP, UK models only)
18	GUI_RST	O	Reset signal output to the bluetooth controller, data bus interface and flash rom
19	ATT	O	Muting on/off control signal output terminal
20	SYSRST	O	Reset signal output to the SONY bus interface IC and CD system control
21	VCC5	-	Power supply terminal (+3.3V)
22	EESIO	I/O	Two-way data bus with the tuner unit
23	EECKO	O	Serial data transfer clock signal output to the tuner unit
24	AMPSTB	O	Standby control signal output to the power amplifier IC
25	GUI_RX	I	Serial data input from the bluetooth controller
26	GUI_TX	O	Serial data output to the bluetooth controller
27	MAS_PW	O	State notification signal output to the bluetooth controller "H": state that can be communicated
28	GUI_PW	I	State notification signal input from the bluetooth controller "H": state that can be communicated
29, 30	RE_IN0, RE_IN1	I	Joystick pulse input from the rotary encoder
31	I2CCKO	O	IIC data transfer clock signal output terminal
32	I2CSIO	I/O	IIC two-way data bus
33	AVCC	-	Power supply terminal (+3.3V)
34	AVRH	I	Reference voltage (+3.3V) input terminal (for A/D conversion)
35	AVSS	-	Ground terminal
36	QUALITY	I	Noise level detection signal input at SEEK mode
37	VSM	I	FM and AM signal-meter voltage detection signal input from the tuner unit (A/D input)
38	NC	-	Not used
39	KEYIN0	I	Front panel key input terminal (A/D input)
40	VSS	-	Ground terminal
41	RC_IN0	I	Rotary remote commander key input terminal (A/D input)
42 to 46	NC	-	Not used
47 to 49	MD0 to MD2	I	Setting terminal for the CPU operational mode

Pin No.	Pin Name	I/O	Description
50	KEY ACK	I	Acknowledge signal (wake up signal) input terminal for the key entry Acknowledge signal is input to accept any function key in the standby status On at input of "H"
51	TUNATTIN	I	Attenuate request signal input from the tuner unit
52	BUIN	I	Back up power supply detection signal input terminal "L" is input at low voltage
53	NC	-	Not used
54	DAVN	I	Synchronize detection signal input of RDS data block (AEP, UK models only)
55	NC	-	Not used
56	UNISI	I	Serial data input from the SONY bus interface IC
57	UNISO	O	Serial data output to the SONY bus interface IC
58	UNISCK	O	Serial data transfer clock signal output to the SONY bus interface IC and CD system control
59, 60	NC	-	Not used
61	DOOR_IND	O	LED drive signal output terminal for sub panel LED "H": LED on
62	IT_POW	O	Power on/off control signal output terminal for the bluetooth section
63	IT_FSW_SFT	O	DC/DC converter oscillation frequency shift control signal output terminal for bluetooth section
64	FSW_SFT	O	DC/DC converter oscillation frequency shift control signal output terminal for fluorescent indicator tube section
65	NC	-	Not used
66	FLASH_W	I	Flash writing mode detection signal input from the bluetooth controller
67	RAMBU	I	Internal RAM reset detection signal input from the reset signal generator Input terminal to check that RAM data are not destroyed due to low voltage "L": Writing mode
68	DOOR_SW	I	Shutter of front panel open/close detection input terminal "H": Open, "L": Close
69	NC	-	Not used
70	ACC_IN	I	Accessory power detection signal input terminal "L": accessory power on
71 to 73	NC	-	Not used
74	AD_ON	O	A/D converter power control signal output When the KEY ACK (pin 50) that controls reference voltage power for key A/D conversion input is active, "L" is output from this terminal to enable the input
75	RESET	I	System reset signal input from the reset signal generator and reset switch "L": reset
76	RST_PROTECT	O	Reset protect control signal output terminal "H": unstable operation of bluetooth controller
77	XIN	I	Sub system clock input terminal (32.768 kHz)
78	XOUT	O	Sub system clock output terminal (32.768 kHz)
79	VSS1	-	Ground terminal
80	OSCOUT	O	Main system clock output terminal (18.432 MHz)
81	OSCIN	I	Main system clock input terminal (18.432 MHz)
82	VCC3	-	Power supply terminal (+3.3V)
83	TELLATT	I	Telephone muting detection signal input terminal At input of "H", the audio signal is attenuated by 20 dB
84	ILLIN	I	Illuminate line detect signal input terminal for the automatic dimmer control "L": detected the illumination line (lighting is made dark)
85	BUSON	O	SONY bus on/off control signal output terminal "L": bus on
86	NC	-	Not used
87	FL_ON	O	Power on/off control signal output terminal for the fluorescent indicator tube section
88	FLD_ON	O	Power on/off control signal output terminal for the fluorescent indicator tube driver section
89	RC_IN1	I	Rotary remote commander shift key input terminal
90	PARKING	I	Side brake (parking brake) detection input terminal "L": brake on
91	EJECT_OK	O	CD eject OK signal output to the CD system control
92	NC	-	Not used

Pin No.	Pin Name	I/O	Description
93	CDMUTE_IN	I	Muting on/off control signal input from the CD system control
94	CDON_IN	I	CD servo power supply detection input terminal
95	CDMON_IN	I	CD mecha power supply detection input terminal
96	TEST_IN	I	Test mode setting terminal "L": test mode
97	DEBUG	I	Debug mode setting terminal "H": debug mode
98 to 100	AREASEL0 to AREASEL2	I	Model destination signal input terminal

KEY BOARD IC704 uPD70F3263GC-B500-8EA-A (FRONT PANEL CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	AVREF0	I	Reference voltage (+3.3V) input terminal (for A/D conversion)
2	AVSS	-	Ground terminal
3, 4	NC	-	Not used
5	AVREF1	I	Reference voltage (+3.3V) input terminal (for D/A conversion)
6, 7	NC	-	Not used
8	FLMD0	I	Flash programming mode input terminal
9	VDD	-	Power supply terminal (+3.3V)
10	REGC	I	Regulator output stability capacity connection terminal
11	VSS	-	Ground terminal
12	X1	I	System clock input terminal (5 MHz)
13	X2	O	System clock output terminal (5 MHz)
14	RESET#	I	System reset signal input terminal
15	GND	-	Ground terminal
16, 17	NC	-	Not used
18	SH_IF	I/O	I: Communication interface signal input from the bluetooth controller O: Output terminal in Flash programming mode
19 to 24	NC	-	Not used
25	BUS_TX	O	UART serial data output to the data bus interface
26	BUS_RX	I	UART serial data input from the data bus interface
27	EDGE_TGR1	I	Blanking signal input terminal
28	GCP_EDGE1	O	GCP trigger signal output terminal
29	GCP_TGR1	I	GCP trigger signal input terminal
30	GCP1	O	GCP trigger signal output terminal
31, 32	NC	-	Not used
33	EVSS	-	Ground terminal
34	EVDD	-	Power supply terminal (+3.3V)
35, 36	NC	-	Not used
37	LATCH	O	FL serial data latch control signal output terminal
38	NC	-	Not used
39	BK	O	Blanking signal output terminal
40	NC	-	Not used
41	FL_SO2	O	FL serial data output terminal
42	FL_CKI2	I	FL serial data transfer clock input terminal
43, 44	NC	-	Not used
45	GCP3	O	GCP trigger signal output terminal
46	GCP_TGR3	I	Blanking signal input terminal
47	GCP2	O	GCP trigger signal output terminal
48	GCP_TGR2	I	GCP trigger signal input terminal
49	GCP_EDGE2	O	GCP trigger signal output terminal
50	EDGE_TGR2	I	Blanking signal input terminal
51	FL_SO1	O	FL serial data output terminal
52	FL_CKO1	I	FL serial data transfer clock output terminal
53	NC	-	Not used
54	FL_SO3	O	FL serial data output terminal
55	FL_CKI3	I	FL serial data transfer clock input terminal
56	NC	-	Not used
57	SIRCS	I	Remote control signal input from the remote control receiver

Pin No.	Pin Name	I/O	Description
58 to 67	NC	-	Not used
68	ENC_SEL	I	Terminal for encoder identification "H": Made in the alps, "L": Made in the hoshiden
69	BVSS	-	Ground terminal
70	BVDD	-	Power supply terminal (+3.3V)
71	BT_LED1	O	LED drive signal output terminal for bluetooth indicator
72	KEY0_SW	O	Bus switch control signal output terminal "H": bus switch active (KEY0 is reading enable)
73	BT_LED2	O	LED drive signal output terminal for bluetooth indicator
74	BT_LED3	O	LED drive signal output terminal for bluetooth indicator
75	FLS_WRT	I	Flash writing mode detection signal input from the bluetooth controller "H": Flash writing mode
76	FLMD1	-	Not used
77	ENTER	I	Enter key input terminal (A/D input)
78 to 88	NC	-	Not used
89	KEY1	I	Front panel key input terminal (A/D input)
90	KEY0	I	Front panel key input terminal (A/D input)
91	KEY2	I	Front panel key input terminal (A/D input)
92 to 99	NC	-	Not used
100	CTR FLMD	O	Flash programming mode output terminal "H": Flash writing mode

SECTION 6
EXPLODED VIEWS

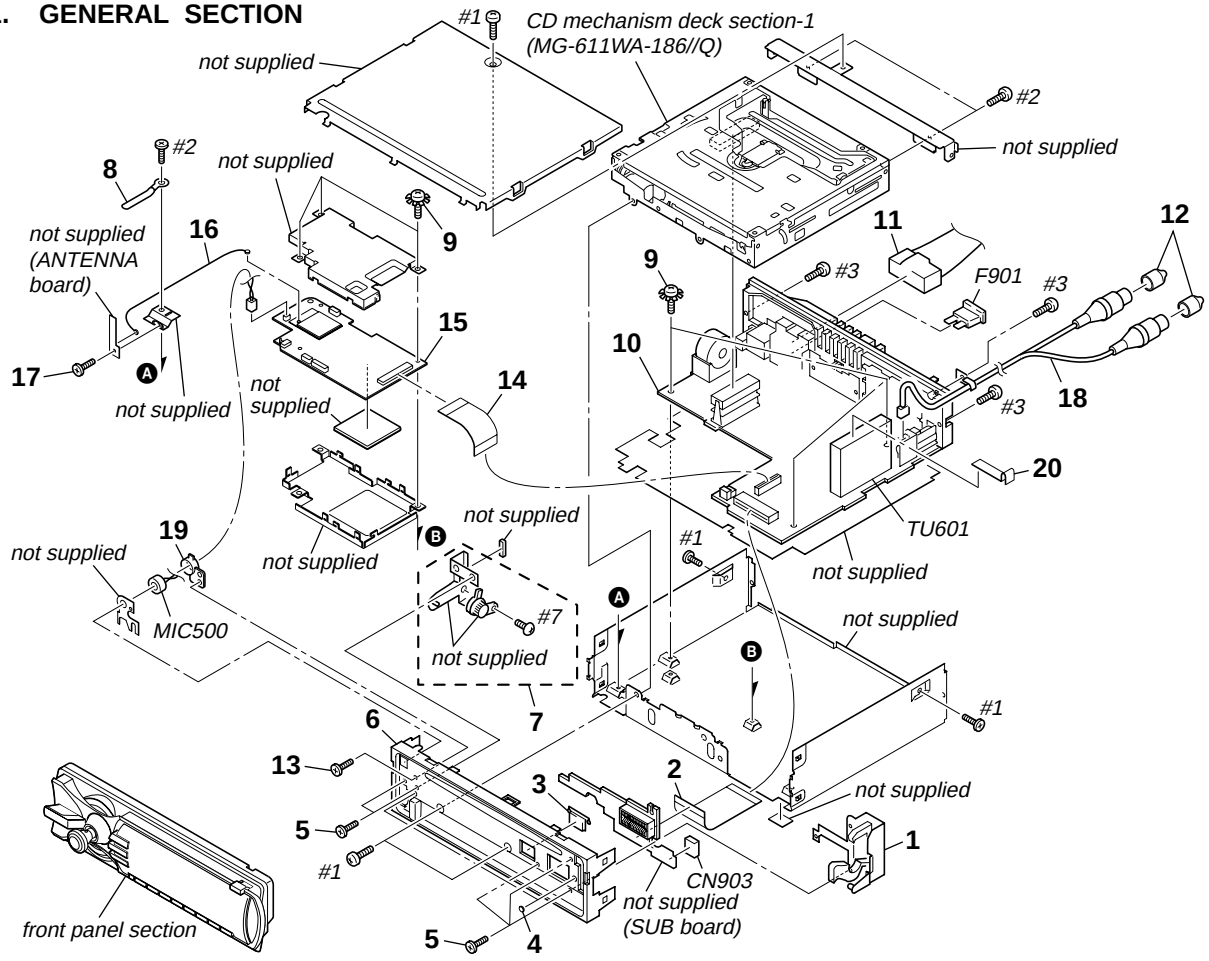
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Abbreviation
  CND : Canadian model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of the electrical parts list.

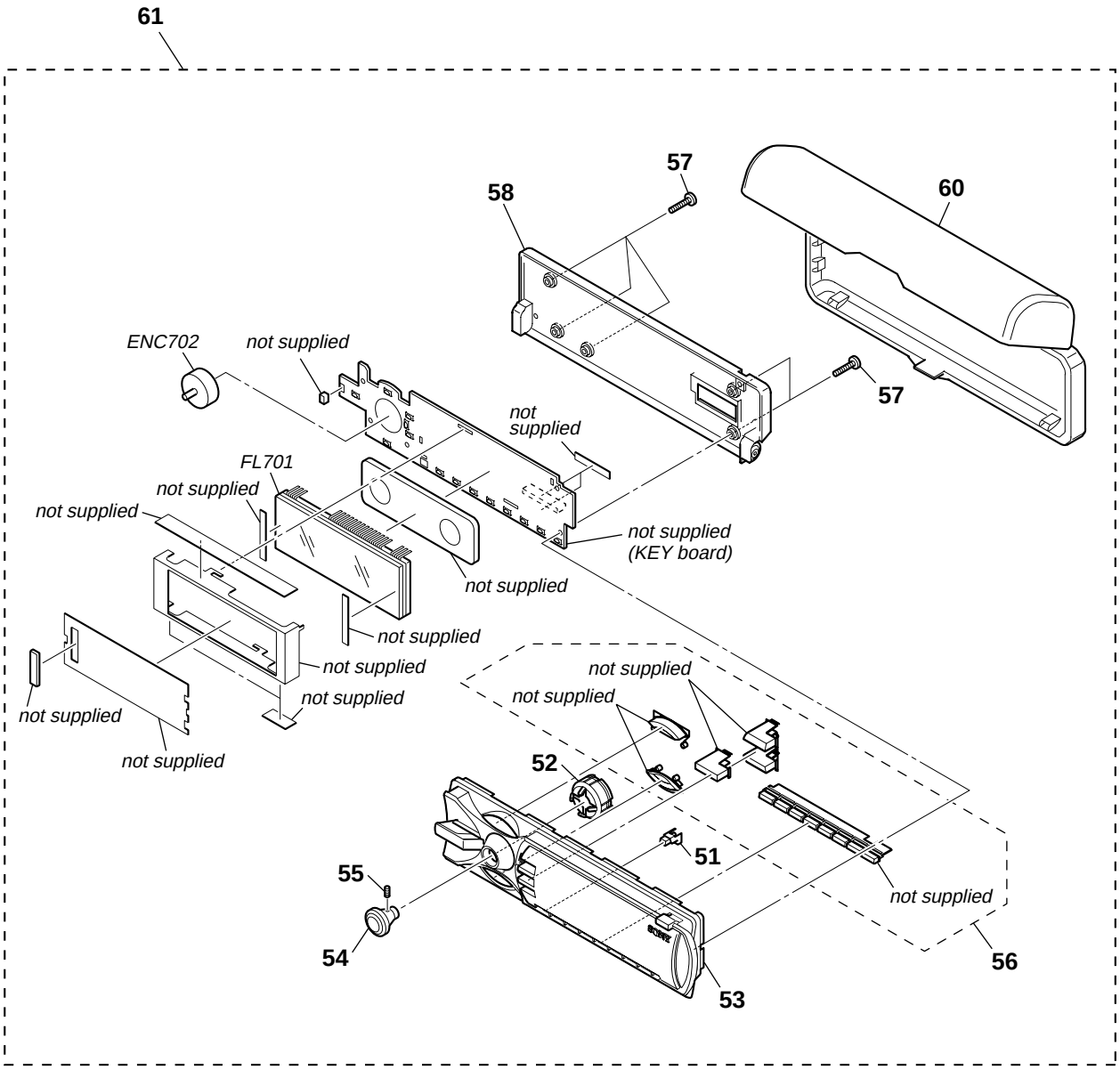
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. GENERAL SECTION


CD mechanism deck section-1
(MG-611WA-186//Q)
not supplied
not supplied
not supplied

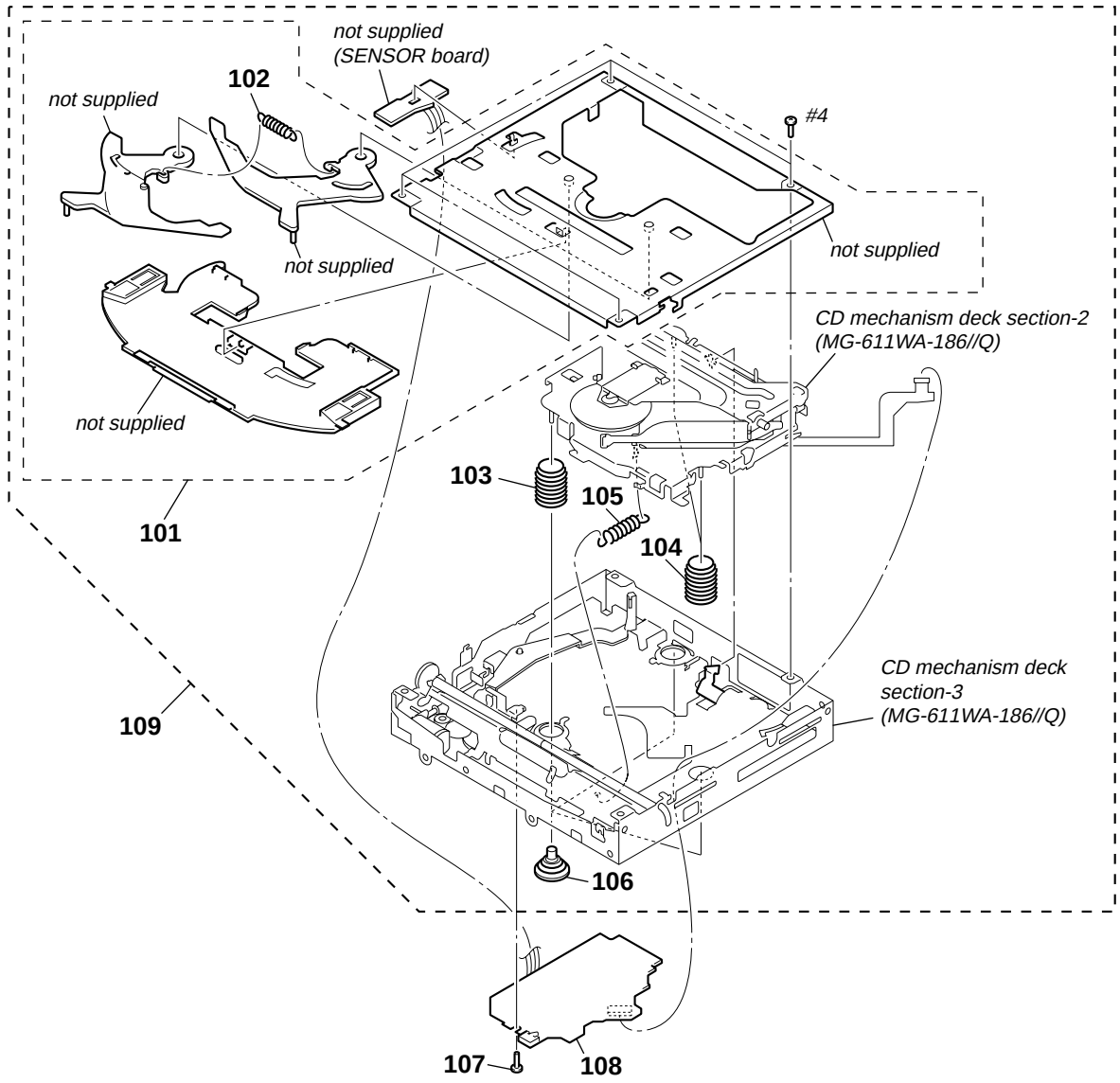
6-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	2-668-789-01	FILTER (IR)	
52	2-668-785-01	PLATE (KNOB), LIGHT GUIDE	
53	X-2148-045-1	PANEL (SV) ASSY, FRONT (AEP, UK)	
53	X-2148-048-1	PANEL (SV) ASSY, FRONT (US, CND)	
53	X-2148-063-1	PANEL (SV) ASSY, FRONT (E)	
54	X-2148-047-1	KNOB ASSY (S)	
55	2-699-819-01	SCREW, HEXAGON SOCKET SET	
56	X-2148-046-1	BUTTON ASSY (S) (AEP, UK)	
56	X-2148-049-1	BUTTON ASSY (S) (US, CND, E)	

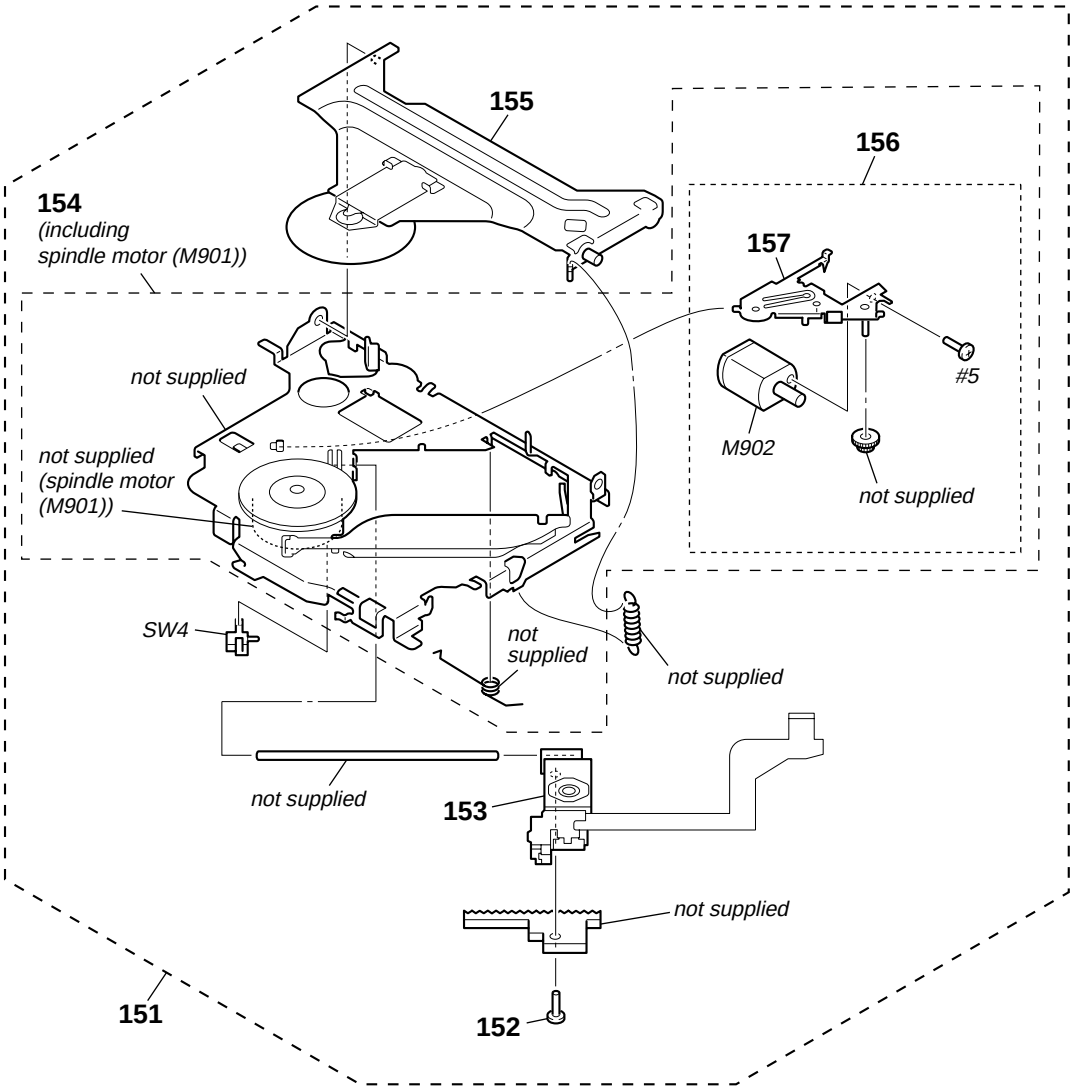
Ref. No.	Part No.	Description	Remark
57	3-250-543-02	SCREW (+B P-TITE M2)	
58	X-2148-044-1	PANEL ASSY, FRONT BACK	
60	X-2109-722-1	CASE ASSY (for FRONT PANEL)	
61	A-1192-873-A	PANEL OVERALL ASSY, FRONT (AEP, UK)	
61	A-1192-893-A	PANEL OVERALL ASSY, FRONT (US, CND)	
61	A-1192-917-A	PANEL COMPLETE ASSY, FRONT (E)	
ENC702	1-479-832-12	ENCODER, ROTARY (SWITCH)	
FL701	1-519-842-21	VACUUM FLUORESCENT DISPLAYS	

6-3. CD MECHANISM DECK SECTION-1 (MG-611WA-186//Q)



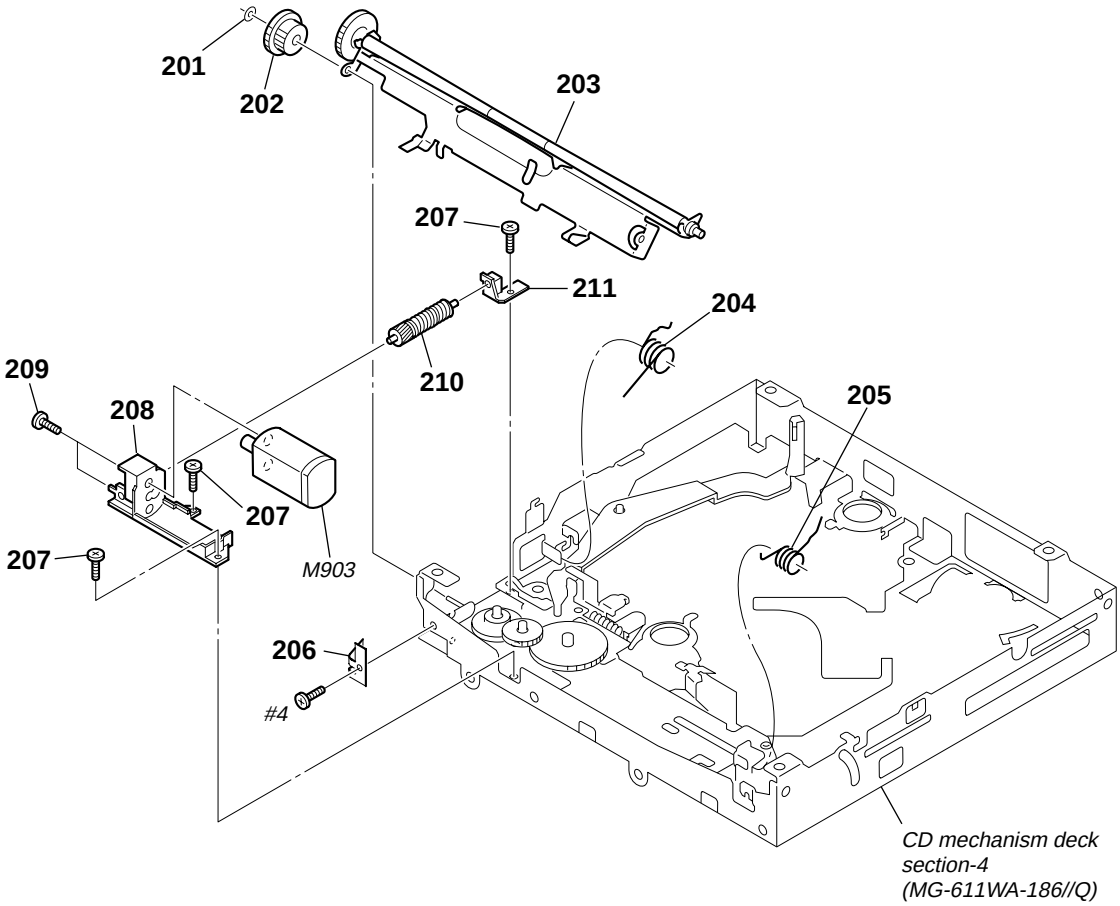
Ref. No.	Part No.	Description	Remark
101	A-3372-444-D	CHASSIS (T) SUB ASSY	
102	3-253-729-11	SPRING (LR), TENSION COIL	
103	3-257-892-12	SPRING (DAMPER), COIL	
104	3-257-892-01	SPRING (DAMPER), COIL	
105	2-345-767-11	SPRING (KF60), TENSION	
106	3-259-033-01	DAMPER (S)	
107	2-587-505-01	SCREW	
108	A-1132-412-A	SERVO BOARD, COMPLETE	
109	A-1079-935-A	MECHANICAL BLOCK ASSY	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

6-4. CD MECHANISM DECK SECTION-2 (MG-611WA-186//Q)



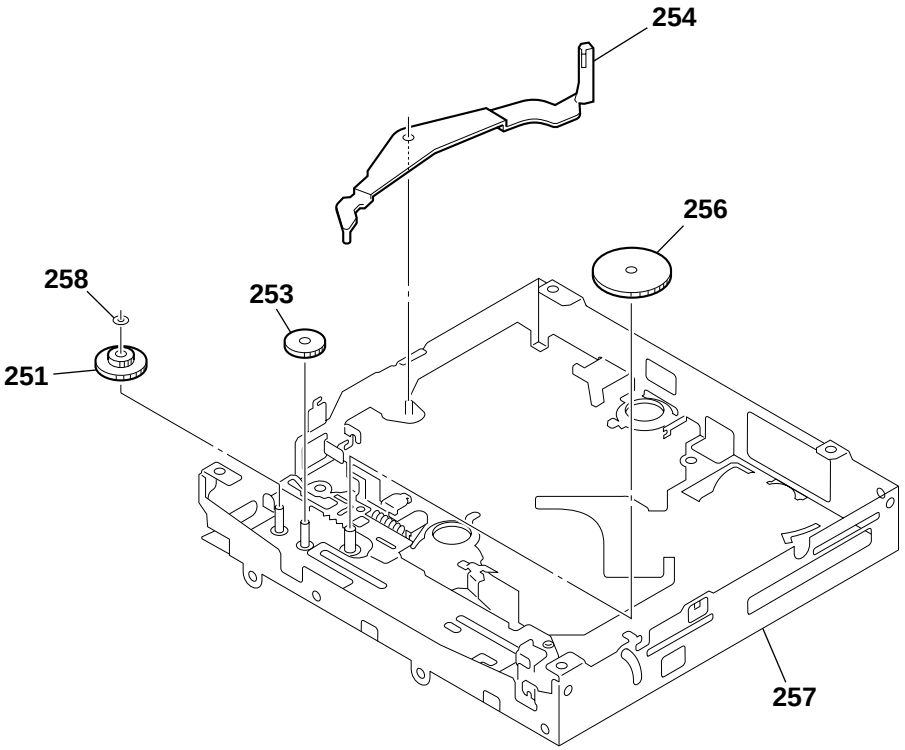
Ref. No.	Part No.	Description	Remark
151	A-1075-644-B	CHASSIS (OP) COMPLETE ASSY	
152	3-316-938-91	SCREW (B1.4X5), TAPPING	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/C-RP1)	
154	A-1075-645-A	CHASSIS (OP) SUB ASSY (including spindle motor (M901))	
155	A-3372-449-A	ARM SUB ASSY, CHUCKING	
156	A-3372-446-A	LEVER (SL) SUB ASSY	
157	X-3384-090-3	LEVER (SL) ASSY	
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)	
SW4	1-786-339-11	SWITCH (M) (LIMIT)	
#5	7-627-850-77	SCREW, PRECISION +P 1.4X1.8	

6-5. CD MECHANISM DECK SECTION-3 (MG-611WA-186//Q)



Ref. No.	Part No.	Description	Remark
201	3-348-993-01	WASHER	
202	2-186-699-21	GEAR (RA1)	
203	A-1075-641-D	ARM ASSY, ROLLER	
204	2-635-295-11	SPRING (RAL-B)	
205	2-635-296-11	SPRING (RAR-B)	
206	3-259-469-12	SPRING (LE), LEAF	
207	2-134-636-21	SCREW (M1.7X2.5)	
208	2-186-696-22	BRACKET (LEM-N)	
209	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
210	A-1166-303-A	GEAR (LE-B) ASSY	
211	2-186-697-21	BEARING (LEB-N)	
M903	A-1206-596-A	LE MOTOR ASSY (A) (LOADING)	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

6-6. CD MECHANISM DECK SECTION-4 (MG-611WA-186//Q)



Ref. No.	Part No.	Description	Remark
251	2-186-700-21	GEAR (CHK1)	
253	3-259-470-33	GEAR (LE1)	
254	3-253-755-43	LEVER (D)	
256	2-590-545-34	GEAR (LE2-M)	
257	A-1075-640-C	CHASSIS (M) BLOCK ASSY	
258	3-348-993-01	WASHER	

SECTION 7
ELECTRICAL PARTS LIST

ANTENNA | IT

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  CND : Canadian model
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA... : µA... uPA... : µPA...
  uPB... : µPB... uPC... : µPC...
  uPD... : µPD...
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		ANTENNA BOARD			
		**********			
		< CONNECTOR >			
CN1	1-784-081-11	CONNECTOR, COAXIAL (SMT TYPE)			
		< JUMPER RESISTOR >			
R1	1-218-990-11	SHORT CHIP 0			
**********					
	A-1192-866-A	IT BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C500	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C507	1-115-156-11	CERAMIC CHIP	1uF		10V
C511	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C512	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C513	1-115-156-11	CERAMIC CHIP	1uF		10V
C514	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C519	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C520	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C521	1-100-567-81	CERAMIC CHIP	10000PF	10%	25V
C522	1-100-567-81	CERAMIC CHIP	10000PF	10%	25V
C523	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C524	1-117-720-11	CERAMIC CHIP	4.7uF		10V
C529	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C530	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C531	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C532	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C533	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C534	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C536	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C538	1-164-936-11	CERAMIC CHIP	680PF	10%	50V
C539	1-164-936-11	CERAMIC CHIP	680PF	10%	50V
C540	1-164-936-11	CERAMIC CHIP	680PF	10%	50V
C541	1-164-936-11	CERAMIC CHIP	680PF	10%	50V
C543	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C549	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C550	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C553	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C558	1-100-159-91	CERAMIC CHIP	22uF	10%	6.3V
C562	1-164-847-11	CERAMIC CHIP	7PF	0.5PF	50V
C565	1-164-847-11	CERAMIC CHIP	7PF	0.5PF	50V
C570	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C571	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C572	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C573	1-115-156-11	CERAMIC CHIP	1uF		10V
C574	1-164-847-11	CERAMIC CHIP	7PF	0.5PF	50V
C575	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C576	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C577	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C578	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C579	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C580	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C581	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C583	1-164-847-11	CERAMIC CHIP	7PF	0.5PF	50V
C584	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C585	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C586	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C587	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C588	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C589	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C590	1-115-156-11	CERAMIC CHIP	1uF		10V
C591	1-115-156-11	CERAMIC CHIP	1uF		10V
C592	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C593	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C594	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C595	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C596	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C597	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C598	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C599	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C600	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C601	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C602	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C603	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C604	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C605	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C606	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C607	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C608	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C609	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C610	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C611	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C612	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C613	1-164-931-11	CERAMIC CHIP	100PF	10%	50V

Note: When IT board is replaced, the version up of the firmware is necessary. When performing the version up, refer to "THE VERSION UP OF THE FIRMWARE" in SERVICING NOTES.

IT

Ref. No.	Part No.	Description			Remark
C614	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C615	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C616	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C617	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C618	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C619	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C620	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C621	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C622	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C623	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C624	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C625	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C626	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C627	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C628	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C629	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C630	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C631	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C632	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C634	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C636	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C637	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C638	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C639	1-100-567-81	CERAMIC CHIP	10000PF	10%	25V
C640	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C641	1-100-581-81	CERAMIC CHIP	4700PF	10%	50V
C647	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C652	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C653	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C659	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C660	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C661	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C662	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C663	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C665	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C666	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C667	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C668	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C669	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C670	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C671	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C672	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C673	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
C674	1-164-931-11	CERAMIC CHIP	100PF	10%	50V
		< CONNECTOR >			
CN500	1-784-650-21	CONNECTOR 2P			
* CN502	1-785-125-21	CONNECTOR 6P			
CN503	1-785-900-21	CONNECTOR 5P			
CN504	1-784-254-11	CONNECTOR 10P			
CN505	1-815-231-61	CONNECTOR, FFC/FPC (ZIF) 40P			
		< DIODE >			
D500	8-719-941-09	DIODE DAP202U			
D501	8-719-978-33	DIODE DTZ-TT11-6.8B			
D502	6-500-460-01	DIODE RSX101M-30TR			
D503	6-500-460-01	DIODE RSX101M-30TR			

Ref. No.	Part No.	Description	Remark
		< FILTER >	
E500	1-469-987-21	FILTER, EMI REMOVAL (SMD)	
		< FERRITE BEAD >	
FB500	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB501	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB502	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB503	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB504	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB505	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB506	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB507	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB508	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB509	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB510	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB511	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB512	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB513	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB514	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB515	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB516	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB517	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB518	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB519	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
FB520	1-469-084-21	INDUCTOR, FERRITE BEAD (1005)	
		< BLUETOOTH MODULE/IC >	
IC500	(Not supplied)	CXN1401-5AAL (BLUETOOTH MODULE)	
IC503	6-707-585-01	IC XC6219B332MR	
IC504	8-759-422-21	IC NJM4580V (TE2)	
IC506	6-709-854-01	IC XR16L2550IM-F	
IC508	6-706-489-01	IC TC7SH32FU (T5RSOYJF)	
IC510	(Not supplied)	IC S29GL032A90BFIR40E-B501	
IC511	6-709-853-01	IC HD6417727F100CV	
IC512	6-707-726-01	IC EDS6432AFTA-6B-E	
IC513	6-709-857-01	IC S-1170B19UC-OTETFG	
IC514	6-705-468-01	IC BA33BC0FP-E2	
IC515	6-704-324-01	IC S-80930CLNB-G60T2G	
IC516	6-709-869-01	IC TC7WBL126AFK	
IC517	6-704-324-01	IC S-80930CLNB-G60T2G	
		< COIL >	
L500	1-469-757-21	INDUCTOR 10uH	
		< TRANSISTOR >	
Q501	8-729-028-76	TRANSISTOR DTA114YUA-T106	
		< RESISTOR >	
R500	1-218-990-11	SHORT CHIP 0	
R501	1-218-990-11	SHORT CHIP 0	
R502	1-218-990-11	SHORT CHIP 0	
R503	1-218-990-11	SHORT CHIP 0	
R507	1-216-864-11	SHORT CHIP 0	
R511	1-218-990-11	SHORT CHIP 0	
R512	1-218-990-11	SHORT CHIP 0	
R513	1-218-990-11	SHORT CHIP 0	

Note: When IC500/510 on the IT board are damaged, exchange the new IT board for the IT board which IC damaged.

Ref. No.	Part No.	Description			Remark
R514	1-218-990-11	SHORT CHIP	0		
R515	1-218-990-11	SHORT CHIP	0		
R520	1-218-990-11	SHORT CHIP	0		
R521	1-218-990-11	SHORT CHIP	0		
R522	1-218-990-11	SHORT CHIP	0		
R523	1-218-990-11	SHORT CHIP	0		
R524	1-218-990-11	SHORT CHIP	0		
R525	1-218-990-11	SHORT CHIP	0		
R526	1-218-990-11	SHORT CHIP	0		
R527	1-218-990-11	SHORT CHIP	0		
R528	1-218-990-11	SHORT CHIP	0		
R529	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R530	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R531	1-218-990-11	SHORT CHIP	0		
R532	1-216-864-11	SHORT CHIP	0		
R533	1-218-990-11	SHORT CHIP	0		
R538	1-218-953-11	RES-CHIP	1K	5%	1/16W
R539	1-218-953-11	RES-CHIP	1K	5%	1/16W
R542	1-218-953-11	RES-CHIP	1K	5%	1/16W
R543	1-218-953-11	RES-CHIP	1K	5%	1/16W
R545	1-218-956-11	RES-CHIP	1.8K	5%	1/16W
R546	1-218-956-11	RES-CHIP	1.8K	5%	1/16W
R547	1-218-941-11	RES-CHIP	100	5%	1/16W
R548	1-218-951-11	RES-CHIP	680	5%	1/16W
R550	1-218-951-11	RES-CHIP	680	5%	1/16W
R551	1-218-951-11	RES-CHIP	680	5%	1/16W
R552	1-218-951-11	RES-CHIP	680	5%	1/16W
R553	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R554	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R555	1-218-956-11	RES-CHIP	1.8K	5%	1/16W
R556	1-218-956-11	RES-CHIP	1.8K	5%	1/16W
R558	1-218-990-11	SHORT CHIP	0		
R560	1-218-945-11	RES-CHIP	220	5%	1/16W
R562	1-218-990-11	SHORT CHIP	0		
R564	1-218-990-11	SHORT CHIP	0		
R572	1-218-941-11	RES-CHIP	100	5%	1/16W
R573	1-218-941-11	RES-CHIP	100	5%	1/16W
R574	1-216-864-11	SHORT CHIP	0		
R577	1-218-990-11	SHORT CHIP	0		
R579	1-218-969-11	RES-CHIP	22K	5%	1/16W
R580	1-218-969-11	RES-CHIP	22K	5%	1/16W
R582	1-218-941-11	RES-CHIP	100	5%	1/16W
R583	1-218-989-11	RES-CHIP	1M	5%	1/16W
R584	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R588	1-216-864-11	SHORT CHIP	0		
R589	1-218-990-11	SHORT CHIP	0		
R590	1-218-990-11	SHORT CHIP	0		
R591	1-218-990-11	SHORT CHIP	0		
R592	1-216-864-11	SHORT CHIP	0		
R593	1-216-864-11	SHORT CHIP	0		
R598	1-216-864-11	SHORT CHIP	0		
R600	1-216-864-11	SHORT CHIP	0		
R601	1-216-864-11	SHORT CHIP	0		
R603	1-218-977-11	RES-CHIP	100K	5%	1/16W
R604	1-218-937-11	RES-CHIP	47	5%	1/16W
R605	1-216-864-11	SHORT CHIP	0		
R606	1-218-945-11	RES-CHIP	220	5%	1/16W
R607	1-218-977-11	RES-CHIP	100K	5%	1/16W
R608	1-218-965-11	RES-CHIP	10K	5%	1/16W
R609	1-218-965-11	RES-CHIP	10K	5%	1/16W
R610	1-218-965-11	RES-CHIP	10K	5%	1/16W
R611	1-218-965-11	RES-CHIP	10K	5%	1/16W
R612	1-218-965-11	RES-CHIP	10K	5%	1/16W
R613	1-218-965-11	RES-CHIP	10K	5%	1/16W
R614	1-218-990-11	SHORT CHIP	0		
R615	1-218-990-11	SHORT CHIP	0		
R616	1-218-990-11	SHORT CHIP	0		
R617	1-218-990-11	SHORT CHIP	0		
R619	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R620	1-218-945-11	RES-CHIP	220	5%	1/16W
R621	1-218-945-11	RES-CHIP	220	5%	1/16W
R622	1-218-990-11	SHORT CHIP	0		
R623	1-218-937-11	RES-CHIP	47	5%	1/16W
R624	1-218-990-11	SHORT CHIP	0		
R626	1-218-977-11	RES-CHIP	100K	5%	1/16W
R627	1-218-965-11	RES-CHIP	10K	5%	1/16W
R628	1-218-941-11	RES-CHIP	100	5%	1/16W
R629	1-218-965-11	RES-CHIP	10K	5%	1/16W
R630	1-218-965-11	RES-CHIP	10K	5%	1/16W
R632	1-218-965-11	RES-CHIP	10K	5%	1/16W
R633	1-218-965-11	RES-CHIP	10K	5%	1/16W
R634	1-218-965-11	RES-CHIP	10K	5%	1/16W
R635	1-218-965-11	RES-CHIP	10K	5%	1/16W
R637	1-218-965-11	RES-CHIP	10K	5%	1/16W
R638	1-218-965-11	RES-CHIP	10K	5%	1/16W
R639	1-218-965-11	RES-CHIP	10K	5%	1/16W
R642	1-218-965-11	RES-CHIP	10K	5%	1/16W
R643	1-216-864-11	SHORT CHIP	0		
R645	1-216-864-11	SHORT CHIP	0		
R646	1-218-990-11	SHORT CHIP	0		
R647	1-218-937-11	RES-CHIP	47	5%	1/16W
R648	1-218-965-11	RES-CHIP	10K	5%	1/16W
R649	1-218-965-11	RES-CHIP	10K	5%	1/16W
R650	1-218-965-11	RES-CHIP	10K	5%	1/16W
R651	1-218-937-11	RES-CHIP	47	5%	1/16W
R652	1-218-990-11	SHORT CHIP	0		
R653	1-218-965-11	RES-CHIP	10K	5%	1/16W
R654	1-218-965-11	RES-CHIP	10K	5%	1/16W
R655	1-218-965-11	RES-CHIP	10K	5%	1/16W
R656	1-218-965-11	RES-CHIP	10K	5%	1/16W
R657	1-218-965-11	RES-CHIP	10K	5%	1/16W
R658	1-218-965-11	RES-CHIP	10K	5%	1/16W
R659	1-218-965-11	RES-CHIP	10K	5%	1/16W
R660	1-208-647-11	METAL CHIP	33	0.5%	1/16W
R661	1-208-647-11	METAL CHIP	33	0.5%	1/16W
R682	1-218-990-11	SHORT CHIP	0		
R683	1-218-990-11	SHORT CHIP	0		
R684	1-216-295-00	SHORT CHIP	0		
R685	1-218-965-11	RES-CHIP	10K	5%	1/16W
R686	1-218-937-11	RES-CHIP	47	5%	1/16W
R687	1-218-990-11	SHORT CHIP	0		
R688	1-218-967-11	RES-CHIP	15K	5%	1/16W
R689	1-218-967-11	RES-CHIP	15K	5%	1/16W
R690	1-218-953-11	RES-CHIP	1K	5%	1/16W
R691	1-216-864-11	SHORT CHIP	0		

IT KEY

Ref. No.	Part No.	Description			Remark
R693	1-218-965-11	RES-CHIP	10K	5%	1/16W
R694	1-218-990-11	SHORT CHIP	0		
R695	1-218-941-11	RES-CHIP	100	5%	1/16W
R696	1-218-941-11	RES-CHIP	100	5%	1/16W
R697	1-218-941-11	RES-CHIP	100	5%	1/16W
R698	1-218-941-11	RES-CHIP	100	5%	1/16W
R699	1-218-937-11	RES-CHIP	47	5%	1/16W
R700	1-218-937-11	RES-CHIP	47	5%	1/16W
R701	1-218-937-11	RES-CHIP	47	5%	1/16W
R702	1-218-937-11	RES-CHIP	47	5%	1/16W
R703	1-218-937-11	RES-CHIP	47	5%	1/16W
R704	1-218-937-11	RES-CHIP	47	5%	1/16W
R705	1-218-937-11	RES-CHIP	47	5%	1/16W
R706	1-218-937-11	RES-CHIP	47	5%	1/16W
R707	1-218-937-11	RES-CHIP	47	5%	1/16W
R708	1-218-937-11	RES-CHIP	47	5%	1/16W
R709	1-218-937-11	RES-CHIP	47	5%	1/16W
R710	1-218-937-11	RES-CHIP	47	5%	1/16W
R711	1-218-937-11	RES-CHIP	47	5%	1/16W
R712	1-218-937-11	RES-CHIP	47	5%	1/16W
R713	1-218-941-11	RES-CHIP	100	5%	1/16W
R714	1-218-941-11	RES-CHIP	100	5%	1/16W
R715	1-216-864-11	SHORT CHIP	0		
R716	1-216-295-00	SHORT CHIP	0		
R717	1-218-941-11	RES-CHIP	100	5%	1/16W
R718	1-218-965-11	RES-CHIP	10K	5%	1/16W
R719	1-218-941-11	RES-CHIP	100	5%	1/16W
		< COMPOSITION CIRCUIT BLOCK >			
RB500	1-234-377-21	RES, NETWORK	4.7K (1005X4)		
RB502	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB503	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB504	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB505	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB506	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB508	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB509	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB510	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB511	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB512	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB513	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB514	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB515	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB516	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB517	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB518	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB519	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB520	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB521	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB522	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB523	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB524	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB525	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB526	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB527	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB528	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB529	1-234-944-21	RES, NETWORK	47 (1005X4)		
RB530	1-234-944-21	RES, NETWORK	47 (1005X4)		

Ref. No.	Part No.	Description			Remark
		< SWITCH >			
S500	1-786-458-11	SWITCH, PUSH (1 KEY) (NOSE DETECT)			
		< VIBRATOR >			
X501	1-813-827-21	VIBRATOR, CRYSTAL (14.7456MHz)			
X502	1-813-264-11	OSCILLATOR, CRYSTAL (48MHz)			
X503	1-813-828-21	VIBRATOR, CRYSTAL (12.5MHz)			
**********					
		KEY BOARD			
		**********			
		< CAPACITOR >			
C702	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C703	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C704	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C709	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C710	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C711	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C712	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C713	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C714	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C715	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C717	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C718	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C721	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C722	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C723	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C724	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C725	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C728	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C729	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C730	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C731	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C732	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN701	1-818-141-11	PLUG, CONNECTOR 20P			
		< DIODE >			
D701	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D702	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D703	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D704	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D705	8-719-060-48	DIODE	RB751V-40TE-17		
D706	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D707	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D709	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D710	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D711	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D713	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D714	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D715	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D716	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D717	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D718	8-719-083-66	DIODE	UDZSTE-1718B		

KEY

Ref. No.	Part No.	Description	Remark
D719	8-719-978-33	DIODE DTZ-TT11-6.8B	
		< IC >	
IC701	6-709-864-01	IC SN74CB3T1G125DCKR	
IC702	8-759-659-13	IC PST3428UL	
IC703	6-600-163-01	IC RS-770	
IC704	6-806-684-01	IC uPD70F3263GC-B500-8EA-A	
IC705	6-600-060-01	IC TC7WZ32FK (TE85R)	
		< LED >	
LED801	6-501-376-01	LED SO-194S-WM-SD-T (BLUETOOTH INDICATOR)	
LED802	6-501-376-01	LED SO-194S-WM-SD-T (BLUETOOTH INDICATOR)	
LED803	6-501-376-01	LED SO-194S-WM-SD-T (BLUETOOTH INDICATOR)	
LED804	6-501-376-01	LED SO-194S-WM-SD-T (MENU)	
LED805	6-501-376-01	LED SO-194S-WM-SD-T (SOURCE)	
LED806	6-501-376-01	LED SO-194S-WM-SD-T (4)	
LED807	6-501-376-01	LED SO-194S-WM-SD-T (BBE MP, 5)	
LED808	6-501-376-01	LED SO-194S-WM-SD-T (SHUF, 2)	
LED809	6-501-376-01	LED SO-194S-WM-SD-T (3)	
LED810	6-501-376-01	LED SO-194S-WM-SD-T (AF/TA) (AEP, UK)	
LED810	6-501-376-01	LED SO-194S-WM-SD-T (SCRL) (US, CND, E)	
LED811	6-501-376-01	LED SO-194S-WM-SD-T (REP, 1)	
LED812	6-501-376-01	LED SO-194S-WM-SD-T (Bluetooth)	
LED813	6-501-376-01	LED SO-194S-WM-SD-T (CALL)	
LED814	6-501-376-01	LED SO-194S-WM-SD-T (OFF)	
LED815	6-501-376-01	LED SO-194S-WM-SD-T (MODE)	
LED816	6-501-376-01	LED SO-194S-WM-SD-T (PUSH LIST, ⏮ ⏭, VOL)	
LED817	6-501-376-01	LED SO-194S-WM-SD-T (PUSH LIST, ⏮ ⏭, VOL)	
LED818	6-501-376-01	LED SO-194S-WM-SD-T (PUSH LIST, ⏮ ⏭, VOL)	
LED819	6-501-376-01	LED SO-194S-WM-SD-T (PUSH LIST, ⏮ ⏭, VOL)	
LED820	6-501-376-01	LED SO-194S-WM-SD-T (PTY, DSPL) (AEP, UK)	
LED820	6-501-376-01	LED SO-194S-WM-SD-T (DSPL) (US, CND, E)	
LED821	6-501-376-01	LED SO-194S-WM-SD-T (PAUSE, 6)	
		< TRANSISTOR >	
Q701	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q801	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q802	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q803	1-801-806-11	TRANSISTOR DTC144EKA-T146	
		< RESISTOR/FERRITE BEAD >	
R003	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R004	1-216-809-11	METAL CHIP 100 5% 1/10W	
R701	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R703	1-216-801-11	METAL CHIP 22 5% 1/10W	
R704	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R705	1-216-801-11	METAL CHIP 22 5% 1/10W	
R706	1-414-760-21	FERRITE, EMI (SMD) (1608)	
R707	1-216-797-11	METAL CHIP 10 5% 1/10W	
R708	1-414-760-21	FERRITE, EMI (SMD) (1608)	
R709	1-414-760-21	FERRITE, EMI (SMD) (1608)	
R710	1-414-760-21	FERRITE, EMI (SMD) (1608)	
R711	1-414-760-21	FERRITE, EMI (SMD) (1608)	
R712	1-414-760-21	FERRITE, EMI (SMD) (1608)	
R713	1-414-760-21	FERRITE, EMI (SMD) (1608)	
R714	1-414-760-21	FERRITE, EMI (SMD) (1608)	
R715	1-414-760-21	FERRITE, EMI (SMD) (1608)	
R716	1-414-760-21	FERRITE, EMI (SMD) (1608)	
R717	1-414-760-21	FERRITE, EMI (SMD) (1608)	
R718	1-216-797-11	METAL CHIP 10 5% 1/10W	
R719	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R720	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R721	1-216-809-11	METAL CHIP 100 5% 1/10W	
R722	1-216-809-11	METAL CHIP 100 5% 1/10W	
R723	1-216-809-11	METAL CHIP 100 5% 1/10W	
R724	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R726	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R727	1-216-797-11	METAL CHIP 10 5% 1/10W	
R731	1-216-809-11	METAL CHIP 100 5% 1/10W	
R742	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R745	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R746	1-216-809-11	METAL CHIP 100 5% 1/10W	
R749	1-216-809-11	METAL CHIP 100 5% 1/10W	
R751	1-216-819-11	METAL CHIP 680 5% 1/10W	
R757	1-216-819-11	METAL CHIP 680 5% 1/10W	
R761	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R762	1-216-819-11	METAL CHIP 680 5% 1/10W	
R763	1-216-819-11	METAL CHIP 680 5% 1/10W	
R764	1-216-819-11	METAL CHIP 680 5% 1/10W	
R766	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R767	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R768	1-216-819-11	METAL CHIP 680 5% 1/10W	
R769	1-216-819-11	METAL CHIP 680 5% 1/10W	
R770	1-216-819-11	METAL CHIP 680 5% 1/10W	
R771	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R773	1-216-809-11	METAL CHIP 100 5% 1/10W	
R774	1-216-819-11	METAL CHIP 680 5% 1/10W	
R775	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R778	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R779	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R780	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R781	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R785	1-216-827-11	METAL CHIP 3.3K 5% 1/10W	
R788	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R793	1-216-009-00	RES-CHIP 22 5% 1/10W	
R794	1-414-235-22	INDUCTOR, FERRITE BEAD	
R795	1-414-235-22	INDUCTOR, FERRITE BEAD	
R796	1-414-234-22	INDUCTOR, FERRITE BEAD	
R797	1-414-234-22	INDUCTOR, FERRITE BEAD	
R801	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R802	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R803	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R804	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R805	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R806	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R807	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R808	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R809	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R810	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	

Note: When IC704 on the KEY board is replaced, the version up of the firmware is necessary. When performing the version up, refer to "THE VERSION UP OF THE FIRMWARE" in SERVICING NOTES.

KEY **MAIN**

Ref. No.	Part No.	Description			Remark
R811	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R812	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R813	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R814	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R815	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R816	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R817	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R818	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R819	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R820	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R821	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R822	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R823	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R824	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R825	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R826	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R827	1-216-864-11	SHORT CHIP	0		
R828	1-216-864-11	SHORT CHIP	0		
R829	1-216-864-11	SHORT CHIP	0		
		< SWITCH >			
S701	1-786-653-11	SWITCH, TACTILE (OFF)			
S702	1-786-653-11	SWITCH, TACTILE (SOURCE)			
S703	1-786-653-11	SWITCH, TACTILE (CALL)			
S704	1-786-653-11	SWITCH, TACTILE (MENU)			
S705	1-786-653-11	SWITCH, TACTILE (Bluetooth)			
S706	1-786-653-11	SWITCH, TACTILE (DSPL) (US, CND, E)			
S706	1-786-653-11	SWITCH, TACTILE (PTY, DSPL) (AEP, UK)			
S707	1-786-653-11	SWITCH, TACTILE (AF/TA) (AEP, UK)			
S707	1-786-653-11	SWITCH, TACTILE (SCRL) (US, CND, E)			
S708	1-786-653-11	SWITCH, TACTILE (MODE)			
S709	1-786-653-11	SWITCH, TACTILE (PAUSE, 6)			
S710	1-786-653-11	SWITCH, TACTILE (BBE MP, 5)			
S711	1-786-653-11	SWITCH, TACTILE (4)			
S712	1-786-653-11	SWITCH, TACTILE (3)			
S713	1-786-653-11	SWITCH, TACTILE (SHUF, 2)			
S714	1-786-653-11	SWITCH, TACTILE (REP, 1)			
		< VIBRATOR >			
X701	1-813-487-21	VIBRATOR, CRYSTAL (5MHz)			
**********					
	A-1192-863-A	MAIN BOARD, COMPLETE (AEP, UK)			
	A-1192-890-A	MAIN BOARD, COMPLETE (US, CND)			
	A-1192-914-A	MAIN BOARD, COMPLETE (E)			
		**********			
	7-621-284-40	SCREW +P 2.6X10			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-793-09	SCREW +PTT 2.6X8 (S)			
	7-685-795-09	SCREW +PTT 2.6X12 (S)			
		< CAPACITOR >			
C101	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C102	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C103	1-112-302-11	ELECT	3300uF	20%	16V
C104	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C105	1-126-963-11	ELECT	4.7uF	20%	50V

Ref. No.	Part No.	Description			Remark
C106	1-126-960-11	ELECT	1uF	20%	50V
C108	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C109	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C111	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C112	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C113	1-126-935-11	ELECT	470uF	20%	16V
C115	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C117	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C118	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C119	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C121	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C122	1-117-288-61	ELECT	100uF	20%	16V
C123	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C124	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C125	1-113-340-11	ELECT	47uF	20%	25V
C126	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C127	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C154	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C201	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C202	1-107-906-11	ELECT	10uF	20%	50V
C203	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C204	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C205	1-107-906-11	ELECT	10uF	20%	50V
C206	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C207	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C208	1-107-906-11	ELECT	10uF	20%	50V
C209	1-107-882-11	ELECT	100uF	20%	16V
C210	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C211	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C212	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C213	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C217	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C219	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C220	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C221	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C222	1-124-695-85	ELECT	22uF	20%	25V
C223	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C224	1-126-961-11	ELECT	2.2uF	20%	50V
C225	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C226	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C227	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C228	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C229	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C230	1-107-906-11	ELECT	10uF	20%	50V
C231	1-126-964-11	ELECT	10uF	20%	50V
C301	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C302	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C303	1-136-153-00	FILM	0.012uF	5%	50V
C304	1-136-153-00	FILM	0.012uF	5%	50V
C305	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C306	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C307	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C308	1-124-717-85	ELECT	1uF	20%	50V
C309	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C310	1-124-717-85	ELECT	1uF	20%	50V
C311	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C312	1-126-960-11	ELECT	1uF	20%	50V
C313	1-162-927-11	CERAMIC CHIP	100PF	5%	50V

Note: When MAIN board is replaced, the version up of the firmware is necessary. When performing the version up, refer to “THE VERSION UP OF THE FIRMWARE” in SERVICING NOTES.

Ref. No.	Part No.	Description			Remark
C314	1-126-960-11	ELECT	1uF	20%	50V
C315	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C316	1-126-960-11	ELECT	1uF	20%	50V
C317	1-124-721-85	ELECT	10uF	20%	50V
C318	1-124-673-85	ELECT	100uF	20%	10V
C319	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C320	1-124-721-85	ELECT	10uF	20%	50V
C321	1-124-721-85	ELECT	10uF	20%	50V
C322	1-124-721-85	ELECT	10uF	20%	50V
C323	1-124-721-85	ELECT	10uF	20%	50V
C324	1-124-721-85	ELECT	10uF	20%	50V
C325	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C326	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C327	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C328	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C329	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C330	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C331	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C332	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C334	1-126-947-11	ELECT	47uF	20%	35V
C335	1-124-721-85	ELECT	10uF	20%	50V
C337	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C338	1-126-947-11	ELECT	47uF	20%	35V
C339	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C341	1-124-721-85	ELECT	10uF	20%	50V
C342	1-126-964-11	ELECT	10uF	20%	50V
C343	1-124-721-85	ELECT	10uF	20%	50V
C345	1-124-721-85	ELECT	10uF	20%	50V
C348	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C349	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C351	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C352	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C401	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C403	1-126-933-11	ELECT	100uF	20%	16V
C405	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C406	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C407	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (US, CND, E)
C408	1-126-963-11	ELECT	4.7uF	20%	50V (AEP, UK)
C409	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C412	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C413	1-126-933-11	ELECT	100uF	20%	16V
C414	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C415	1-162-959-11	CERAMIC CHIP	330PF	5%	50V (AEP, UK)
C416	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP, UK)
C417	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP, UK)
C418	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP, UK)
C419	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP, UK)
C420	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP, UK)
C421	1-162-917-11	CERAMIC CHIP	15PF	5%	50V (AEP, UK)
C422	1-126-947-11	ELECT	47uF	20%	35V (AEP, UK)
C423	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (AEP, UK)
C424	1-162-917-11	CERAMIC CHIP	15PF	5%	50V (AEP, UK)
C425	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP, UK)
C501	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C502	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C506	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C507	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C508	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C509	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C510	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C511	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C512	1-126-961-11	ELECT	2.2uF	20%	50V
C513	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C514	1-126-933-11	ELECT	100uF	20%	16V
C515	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C516	1-126-933-11	ELECT	100uF	20%	16V
C517	1-126-924-11	ELECT	330uF	20%	10V
C518	1-126-916-11	ELECT	1000uF	20%	6.3V
C519	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C520	1-126-933-11	ELECT	100uF	20%	16V
C521	1-126-933-11	ELECT	100uF	20%	16V
C522	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C525	1-126-933-11	ELECT	100uF	20%	16V
C526	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C527	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C528	1-126-933-11	ELECT	100uF	20%	16V
C530	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C531	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C603	1-126-933-11	ELECT	100uF	20%	16V
C604	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C605	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C606	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C607	1-117-288-61	ELECT	100uF	20%	16V
C608	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C609	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C610	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C611	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C612	1-125-889-11	CERAMIC CHIP	2.2uF	10%	10V
C613	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C614	1-100-672-11	CERAMIC CHIP	10uF	20%	16V
C615	1-137-980-11	CERAMIC CHIP	0.47uF	10%	50V
C616	1-114-207-51	ELECT	56uF	20%	63V
C617	1-137-980-11	CERAMIC CHIP	0.47uF	10%	50V
C618	1-100-623-91	CERAMIC CHIP	0.1uF	10%	100V
C619	1-126-934-11	ELECT	220uF	20%	16V
C620	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C621	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C622	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C623	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C624	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C625	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C627	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V

MAIN

Ref. No.	Part No.	Description				Remark
C629	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C630	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V	
C631	1-164-217-11	CERAMIC CHIP	150PF	5%	50V	
C632	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	
C633	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C649	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C651	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	
		< CONNECTOR >				
* CN301	1-564-506-11	PLUG, CONNECTOR 3P				
CN503	1-820-480-51	CONNECTOR, FFC/FPC (ZIF) 40P				
CN601	1-569-915-11	SOCKET, CONNECTOR 22P				
CN602	1-785-900-21	CONNECTOR 5P				
CN603	1-785-900-21	CONNECTOR 5P				
		< JACK >				
CNJ351	1-566-822-41	JACK (REMOTE IN)				
		< CONNECTOR >				
CNP101	1-774-701-21	PIN, CONNECTOR 16P				
CNP102	1-580-907-41	PLUG, CONNECTOR (BUS CONTROL IN)				
CNP501	1-817-536-11	CONNECTOR, BOARD TO BOARD 28P				
		< DIODE >				
D101	8-719-053-18	DIODE	1SR154-400TE-25			
D102	8-719-053-18	DIODE	1SR154-400TE-25			
D103	8-719-053-18	DIODE	1SR154-400TE-25			
D104	8-719-053-18	DIODE	1SR154-400TE-25			
D105	8-719-053-18	DIODE	1SR154-400TE-25			
D106	8-719-053-18	DIODE	1SR154-400TE-25			
D107	8-719-053-18	DIODE	1SR154-400TE-25			
D108	8-719-053-18	DIODE	1SR154-400TE-25			
D109	8-719-053-18	DIODE	1SR154-400TE-25			
D110	8-719-053-18	DIODE	1SR154-400TE-25			
D111	8-719-053-18	DIODE	1SR154-400TE-25			
D112	8-719-053-18	DIODE	1SR154-400TE-25			
D113	8-719-978-33	DIODE	DTZ-TT11-6.8B			
D114	8-719-049-38	DIODE	1N5404TU			
D115	8-719-083-66	DIODE	UDZSTE-1718B			
D116	8-719-988-61	DIODE	1SS355TE-17			
D118	8-719-069-54	DIODE	UDZSTE-175.1B			
D119	8-719-987-69	DIODE	DAN217			
D121	8-719-988-82	DIODE	RB715F			
D122	8-719-083-66	DIODE	UDZSTE-1718B			
D123	8-719-083-66	DIODE	UDZSTE-1718B			
D124	8-719-060-48	DIODE	RB751V-40TE-17			
D125	8-719-069-56	DIODE	UDZSTE-176.2B			
D126	8-719-083-66	DIODE	UDZSTE-1718B			
D127	8-719-914-43	DIODE	DAN202K			
D128	6-501-422-01	DIODE	RSX501LA-20TR			
D129	8-719-083-66	DIODE	UDZSTE-1718B			
D130	8-719-978-33	DIODE	DTZ-TT11-6.8B			
D301	8-719-978-33	DIODE	DTZ-TT11-6.8B			
D302	8-719-988-61	DIODE	1SS355TE-17			
D304	8-719-988-61	DIODE	1SS355TE-17			
D305	8-719-988-61	DIODE	1SS355TE-17			
D306	8-719-073-35	DIODE	RB551V-30TE-17			
D401	8-719-069-55	DIODE	UDZSTE-175.6B			

Ref. No.	Part No.	Description		Remark
D501	8-719-914-44	DIODE	DAP202K	
D502	6-501-422-01	DIODE	RSX501LA-20TR	
D503	8-719-989-08	DIODE	RB717F	
D505	8-719-988-61	DIODE	1SS355TE-17	
D506	8-719-060-48	DIODE	RB751V-40TE-17	
D507	8-719-060-48	DIODE	RB751V-40TE-17	
D510	8-719-060-48	DIODE	RB751V-40TE-17	
D511	8-719-992-02	DIODE	RB705D	
D512	8-719-060-48	DIODE	RB751V-40TE-17	
D601	8-719-053-18	DIODE	1SR154-400TE-25	
D602	8-719-053-18	DIODE	1SR154-400TE-25	
D603	8-719-083-66	DIODE	UDZSTE-1718B	
D604	8-719-978-33	DIODE	DTZ-TT11-6.8B	
D605	8-719-060-48	DIODE	RB751V-40TE-17	
D606	6-501-422-01	DIODE	RSX501LA-20TR	
D607	6-501-123-01	DIODE	RB160M-60TR	
D608	6-501-123-01	DIODE	RB160M-60TR	
D610	6-501-123-01	DIODE	RB160M-60TR	
D611	8-719-978-33	DIODE	DTZ-TT11-6.8B	
D614	8-719-083-66	DIODE	UDZSTE-1718B	
D615	8-719-069-54	DIODE	UDZSTE-175.1B	
D616	8-719-060-48	DIODE	RB751V-40TE-17	
D617	8-719-053-18	DIODE	1SR154-400TE-25	
D618	8-719-978-33	DIODE	DTZ-TT11-6.8B	
D619	8-719-978-33	DIODE	DTZ-TT11-6.8B	
D620	8-719-978-33	DIODE	DTZ-TT11-6.8B	
D621	8-719-069-56	DIODE	UDZSTE-176.2B	
D622	8-719-069-56	DIODE	UDZSTE-176.2B	
D623	8-719-069-56	DIODE	UDZSTE-176.2B	
D624	8-719-069-56	DIODE	UDZSTE-176.2B	
D625	8-719-069-56	DIODE	UDZSTE-176.2B	
D626	8-719-069-56	DIODE	UDZSTE-176.2B	
D627	8-719-069-56	DIODE	UDZSTE-176.2B	
D628	8-719-069-56	DIODE	UDZSTE-176.2B	
		< JUMPER RESISTOR >		
FB501	1-216-295-00	SHORT CHIP	0	
FB502	1-216-295-00	SHORT CHIP	0	
FB503	1-216-295-00	SHORT CHIP	0	
		< IC >		
IC101	6-709-863-01	IC	BD9300FV-FE2	
IC102	6-703-884-01	IC	BA8271F-E2	
IC201	6-705-359-02	IC	TDA8588AJ/N2/R1	
IC301	6-707-303-01	IC	TDA7419TR	
IC302	6-701-105-01	IC	NJM2750M-TE2	
IC401	6-803-747-01	IC	TDA7333013TR (AEP, UK)	
IC501	6-806-667-01	IC	MB90F488BPFV-G-9012-SPE1	
IC502	8-759-659-13	IC	PST3428UL	
IC503	6-706-489-01	IC	TC7SH32FU (T5RSOYJF)	
IC504	6-705-373-01	IC	MM3123DPLE	
IC522	6-709-862-01	IC	R5520H001B-T1-FB	
IC601	6-706-884-01	IC	BD9851EFV-E2	
IC602	6-707-281-01	IC	MM1613DNLE	
IC604	6-709-861-01	IC	TC7SH126FU (T5RSOYF)	

Note: When IC501 on the MIAN board is replaced, the version up of the firmware is necessary. When performing the version up, refer to "THE VERSION UP OF THE FIRMWARE" in SERVICING NOTES.

Ref. No.	Part No.	Description		Remark
		< JACK >		
J401	1-815-185-13	JACK (ANT) (ANTENNA IN)		
		< COIL >		
L101	1-456-617-11	COIL, CHOKE		
L103	1-481-081-11	INDUCTOR	47uH	
L104	1-481-081-11	INDUCTOR	47uH	
L201	1-216-295-00	SHORT CHIP	0	
L501	1-414-394-41	INDUCTOR	2.2uH	
L502	1-414-398-11	INDUCTOR	10uH	
L503	1-414-394-41	INDUCTOR	2.2uH	
L601	1-481-104-11	INDUCTOR	100uH	
L602	1-457-073-11	INDUCTOR	47uH	
L603	1-457-220-21	INDUCTOR	150uH	
L604	1-414-394-41	INDUCTOR	2.2uH	
		< JACK >		
PJ301	1-774-700-11	JACK, PIN 6P (AUDIO OUT FRONT/REAR, BUS AUDIO IN/AUX IN)		
		< TRANSISTOR >		
Q101	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q102	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q103	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q104	8-729-048-87	FET	2SJ518AZTR	
Q105	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q106	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R	
Q108	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q109	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q110	8-729-027-43	TRANSISTOR	DTC114EKA-T146	
Q111	8-729-027-43	TRANSISTOR	DTC114EKA-T146	
Q112	1-801-806-11	TRANSISTOR	DTC144EKA-T146	
Q113	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q114	8-729-027-43	TRANSISTOR	DTC114EKA-T146	
Q115	8-729-050-41	FET	2SJ360-TE12L	
Q116	1-801-806-11	TRANSISTOR	DTC144EKA-T146	
Q117	8-729-027-43	TRANSISTOR	DTC114EKA-T146	
Q301	6-550-752-01	TRANSISTOR	DTC614TKT146	
Q302	6-550-752-01	TRANSISTOR	DTC614TKT146	
Q303	6-550-752-01	TRANSISTOR	DTC614TKT146	
Q304	6-550-752-01	TRANSISTOR	DTC614TKT146	
Q305	6-550-752-01	TRANSISTOR	DTC614TKT146	
Q306	6-550-683-01	FET	RJK005N03-T146	
Q307	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q308	1-801-806-11	TRANSISTOR	DTC144EKA-T146	
Q401	1-801-806-11	TRANSISTOR	DTC144EKA-T146 (AEP, UK)	
Q402	8-729-106-68	TRANSISTOR	2SD1615A-GP	
Q403	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R (AEP, UK)	
Q404	1-801-806-11	TRANSISTOR	DTC144EKA-T146 (AEP, UK)	
Q501	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q601	8-729-050-41	FET	2SJ360-TE12L	
Q602	1-801-806-11	TRANSISTOR	DTC144EKA-T146	
Q603	8-729-050-41	FET	2SJ360-TE12L	
Q604	6-551-477-01	FET	2SK2963	
Q605	6-551-268-01	TRANSISTOR	2SC5625	
Q606	8-729-600-22	TRANSISTOR	2SA1235-F	
Q607	6-551-268-01	TRANSISTOR	2SC5625	
Q608	6-551-478-01	TRANSISTOR	2SA2114TL	
Q609	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q610	8-729-600-22	TRANSISTOR	2SA1235-F	
Q611	8-729-027-43	TRANSISTOR	DTC114EKA-T146	
		< RESISTOR >		
R101	1-216-821-11	METAL CHIP	1K 5% 1/10W	
R102	1-216-821-11	METAL CHIP	1K 5% 1/10W	
R103	1-216-841-11	METAL CHIP	47K 5% 1/10W	
R104	1-216-833-11	METAL CHIP	10K 5% 1/10W	
R105	1-216-821-11	METAL CHIP	1K 5% 1/10W	
R106	1-216-833-11	METAL CHIP	10K 5% 1/10W	
R107	1-216-073-00	RES-CHIP	10K 5% 1/10W	
R108	1-216-845-11	METAL CHIP	100K 5% 1/10W	
R109	1-216-073-00	RES-CHIP	10K 5% 1/10W	
R110	1-216-837-11	METAL CHIP	22K 5% 1/10W	
R111	1-216-073-00	RES-CHIP	10K 5% 1/10W	
R112	1-216-841-11	METAL CHIP	47K 5% 1/10W	
R113	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	
R114	1-216-841-11	METAL CHIP	47K 5% 1/10W	
R115	1-216-073-00	RES-CHIP	10K 5% 1/10W	
R116	1-216-821-11	METAL CHIP	1K 5% 1/10W	
R117	1-216-821-11	METAL CHIP	1K 5% 1/10W	
R118	1-216-823-11	METAL CHIP	1.5K 5% 1/10W	
R119	1-216-801-11	METAL CHIP	22 5% 1/10W	
R120	1-216-797-11	METAL CHIP	10 5% 1/10W	
R121	1-218-289-11	METAL CHIP	510 5% 1/10W	
R122	1-216-833-11	METAL CHIP	10K 5% 1/10W	
R123	1-216-835-11	METAL CHIP	15K 5% 1/10W	
R124	1-216-821-11	METAL CHIP	1K 5% 1/10W	
R125	1-216-821-11	METAL CHIP	1K 5% 1/10W	
R126	1-216-864-11	SHORT CHIP	0	
R127	1-216-851-11	METAL CHIP	330K 5% 1/10W	
R128	1-216-851-11	METAL CHIP	330K 5% 1/10W	
R129	1-216-841-11	METAL CHIP	47K 5% 1/10W	
R130	1-216-809-11	METAL CHIP	100 5% 1/10W	
R131	1-216-077-00	RES-CHIP	15K 5% 1/10W	
R132	1-216-809-11	METAL CHIP	100 5% 1/10W	
R133	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	
R134	1-216-049-11	RES-CHIP	1K 5% 1/10W	
R135	1-216-029-00	RES-CHIP	150 5% 1/10W	
R136	1-216-029-00	RES-CHIP	150 5% 1/10W	
R137	1-216-029-00	RES-CHIP	150 5% 1/10W	
R138	1-216-838-11	METAL CHIP	27K 5% 1/10W	
R139	1-216-845-11	METAL CHIP	100K 5% 1/10W	
R141	1-218-882-11	METAL CHIP	30K 0.5% 1/10W	
R142	1-218-871-11	METAL CHIP	10K 0.5% 1/10W	
R143	1-216-841-11	METAL CHIP	47K 5% 1/10W	
R144	1-216-833-11	METAL CHIP	10K 5% 1/10W	
R145	1-216-049-11	RES-CHIP	1K 5% 1/10W	
R201	1-216-295-00	SHORT CHIP	0	
R202	1-216-295-00	SHORT CHIP	0	
R203	1-216-295-00	SHORT CHIP	0	
R204	1-216-295-00	SHORT CHIP	0	
R205	1-216-841-11	METAL CHIP	47K 5% 1/10W	
R206	1-216-811-11	METAL CHIP	150 5% 1/10W	

MAIN

Ref. No.	Part No.	Description			Remark
R301	1-216-833-11	METAL CHIP	10K	5%	1/10W
R302	1-216-833-11	METAL CHIP	10K	5%	1/10W
R303	1-216-295-00	SHORT CHIP	0		
R304	1-216-833-11	METAL CHIP	10K	5%	1/10W
R305	1-216-833-11	METAL CHIP	10K	5%	1/10W
R306	1-216-864-11	SHORT CHIP	0		
R307	1-216-864-11	SHORT CHIP	0		
R308	1-216-809-11	METAL CHIP	100	5%	1/10W
R309	1-216-809-11	METAL CHIP	100	5%	1/10W
R310	1-216-809-11	METAL CHIP	100	5%	1/10W
R311	1-216-809-11	METAL CHIP	100	5%	1/10W
R312	1-216-809-11	METAL CHIP	100	5%	1/10W
R313	1-216-809-11	METAL CHIP	100	5%	1/10W
R314	1-216-833-11	METAL CHIP	10K	5%	1/10W
R315	1-216-833-11	METAL CHIP	10K	5%	1/10W
R316	1-216-809-11	METAL CHIP	100	5%	1/10W
R317	1-216-809-11	METAL CHIP	100	5%	1/10W
R318	1-216-833-11	METAL CHIP	10K	5%	1/10W
R319	1-216-833-11	METAL CHIP	10K	5%	1/10W
R320	1-216-809-11	METAL CHIP	100	5%	1/10W
R321	1-216-809-11	METAL CHIP	100	5%	1/10W
R322	1-216-833-11	METAL CHIP	10K	5%	1/10W
R323	1-216-809-11	METAL CHIP	100	5%	1/10W
R324	1-216-295-00	SHORT CHIP	0		
R325	1-216-295-00	SHORT CHIP	0		
R326	1-216-295-00	SHORT CHIP	0		
R327	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R328	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R329	1-216-833-11	METAL CHIP	10K	5%	1/10W
R330	1-216-833-11	METAL CHIP	10K	5%	1/10W
R331	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R332	1-216-805-11	METAL CHIP	47	5%	1/10W
R334	1-216-845-11	METAL CHIP	100K	5%	1/10W
R335	1-216-864-11	SHORT CHIP	0		
R336	1-216-864-11	SHORT CHIP	0		
R337	1-216-845-11	METAL CHIP	100K	5%	1/10W
R338	1-216-845-11	METAL CHIP	100K	5%	1/10W
R339	1-216-845-11	METAL CHIP	100K	5%	1/10W
R401	1-216-839-11	METAL CHIP	33K	5%	1/10W
R402	1-216-295-00	SHORT CHIP	0		
R403	1-216-295-00	SHORT CHIP	0		
R404	1-216-295-00	SHORT CHIP	0		
R405	1-216-843-11	METAL CHIP	68K	5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W (AEP, UK)
R407	1-218-883-11	METAL CHIP	33K	0.5%	1/10W
R408	1-216-295-00	SHORT CHIP	0		
R409	1-218-891-11	METAL CHIP	68K	0.5%	1/10W
R410	1-216-821-11	METAL CHIP	1K	5%	1/10W
R411	1-216-833-11	METAL CHIP	10K	5%	1/10W (AEP, UK)
R412	1-216-864-11	SHORT CHIP	0 (AEP, UK)		
R413	1-216-821-11	METAL CHIP	1K	5%	1/10W (AEP, UK)
R414	1-216-864-11	SHORT CHIP	0 (AEP, UK)		
R415	1-216-801-11	METAL CHIP	22	5%	1/10W (AEP, UK)
R416	1-216-864-11	SHORT CHIP	0 (AEP, UK)		
R417	1-216-845-11	METAL CHIP	100K	5%	1/10W (AEP, UK)
R418	1-216-797-11	METAL CHIP	10	5%	1/10W (AEP, UK)
R419	1-216-797-11	METAL CHIP	10	5%	1/10W (AEP, UK)
R501	1-216-833-11	METAL CHIP	10K	5%	1/10W
R503	1-216-845-11	METAL CHIP	100K	5%	1/10W (AEP, UK)
R504	1-216-845-11	METAL CHIP	100K	5%	1/10W (US, CND)
R507	1-216-845-11	METAL CHIP	100K	5%	1/10W (US, CND, E)
R508	1-216-845-11	METAL CHIP	100K	5%	1/10W (AEP, UK, E)
R509	1-216-845-11	METAL CHIP	100K	5%	1/10W (US, CND, AEP, UK)
R510	1-216-845-11	METAL CHIP	100K	5%	1/10W
R511	1-216-833-11	METAL CHIP	10K	5%	1/10W
R512	1-216-833-11	METAL CHIP	10K	5%	1/10W
R513	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R514	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R515	1-216-809-11	METAL CHIP	100	5%	1/10W
R516	1-216-809-11	METAL CHIP	100	5%	1/10W
R517	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R518	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R519	1-216-845-11	METAL CHIP	100K	5%	1/10W
R520	1-216-864-11	SHORT CHIP	0		
R521	1-216-841-11	METAL CHIP	47K	5%	1/10W
R522	1-216-864-11	SHORT CHIP	0		
R523	1-216-843-11	METAL CHIP	68K	5%	1/10W (AEP, UK)
R524	1-216-864-11	SHORT CHIP	0		
R525	1-216-845-11	METAL CHIP	100K	5%	1/10W
R526	1-216-845-11	METAL CHIP	100K	5%	1/10W
R527	1-216-845-11	METAL CHIP	100K	5%	1/10W
R528	1-216-845-11	METAL CHIP	100K	5%	1/10W
R529	1-216-845-11	METAL CHIP	100K	5%	1/10W
R530	1-216-839-11	METAL CHIP	33K	5%	1/10W (AEP, UK)
R531	1-216-864-11	SHORT CHIP	0		
R532	1-216-845-11	METAL CHIP	100K	5%	1/10W
R533	1-216-841-11	METAL CHIP	47K	5%	1/10W
R534	1-216-845-11	METAL CHIP	100K	5%	1/10W
R535	1-216-821-11	METAL CHIP	1K	5%	1/10W
R536	1-216-853-11	METAL CHIP	470K	5%	1/10W
R537	1-216-295-00	SHORT CHIP	0		
R538	1-216-295-00	SHORT CHIP	0		
R539	1-216-841-11	METAL CHIP	47K	5%	1/10W
R540	1-216-809-11	METAL CHIP	100	5%	1/10W
R541	1-216-809-11	METAL CHIP	100	5%	1/10W
R542	1-216-809-11	METAL CHIP	100	5%	1/10W
R544	1-216-809-11	METAL CHIP	100	5%	1/10W
R545	1-216-809-11	METAL CHIP	100	5%	1/10W
R546	1-216-809-11	METAL CHIP	100	5%	1/10W
R547	1-216-809-11	METAL CHIP	100	5%	1/10W
R548	1-216-809-11	METAL CHIP	100	5%	1/10W
R549	1-216-809-11	METAL CHIP	100	5%	1/10W
R550	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R551	1-216-809-11	METAL CHIP	100	5%	1/10W
R552	1-216-809-11	METAL CHIP	100	5%	1/10W
R553	1-216-809-11	METAL CHIP	100	5%	1/10W
R554	1-216-809-11	METAL CHIP	100	5%	1/10W
R555	1-216-809-11	METAL CHIP	100	5%	1/10W
R556	1-216-809-11	METAL CHIP	100	5%	1/10W
R557	1-216-809-11	METAL CHIP	100	5%	1/10W
R558	1-216-809-11	METAL CHIP	100	5%	1/10W
R559	1-216-809-11	METAL CHIP	100	5%	1/10W
R560	1-216-809-11	METAL CHIP	100	5%	1/10W
R561	1-216-845-11	METAL CHIP	100K	5%	1/10W
R562	1-216-295-00	SHORT CHIP	0		
R563	1-216-864-11	SHORT CHIP	0		
R564	1-216-295-00	SHORT CHIP	0		
R565	1-216-295-00	SHORT CHIP	0		
R566	1-216-295-00	SHORT CHIP	0		
R567	1-216-295-00	SHORT CHIP	0		
R569	1-216-821-11	METAL CHIP	1K	5%	1/10W
R570	1-216-845-11	METAL CHIP	100K	5%	1/10W
R571	1-216-295-00	SHORT CHIP	0		
R572	1-216-809-11	METAL CHIP	100	5%	1/10W
R573	1-216-845-11	METAL CHIP	100K	5%	1/10W
R574	1-216-864-11	SHORT CHIP	0		
R575	1-216-845-11	METAL CHIP	100K	5%	1/10W
R590	1-216-845-11	METAL CHIP	100K	5%	1/10W (E)
R591	1-216-845-11	METAL CHIP	100K	5%	1/10W (E)
R601	1-216-833-11	METAL CHIP	10K	5%	1/10W
R602	1-216-837-11	METAL CHIP	22K	5%	1/10W
R603	1-218-875-11	METAL CHIP	15K	0.5%	1/10W
R604	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R605	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R606	1-218-883-11	METAL CHIP	33K	0.5%	1/10W
R607	1-218-880-11	METAL CHIP	24K	0.5%	1/10W
R608	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R609	1-218-847-11	METAL CHIP	1K	0.5%	1/10W
R610	1-218-873-11	METAL CHIP	12K	0.5%	1/10W
R611	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R612	1-216-833-11	METAL CHIP	10K	5%	1/10W
R613	1-216-853-11	METAL CHIP	470K	5%	1/10W
R615	1-216-847-11	METAL CHIP	150K	5%	1/10W
R616	1-216-851-11	METAL CHIP	330K	5%	1/10W
R618	1-216-295-00	SHORT CHIP	0		
R619	1-216-295-00	SHORT CHIP	0		
R620	1-216-864-11	SHORT CHIP	0		
R621	1-216-841-11	METAL CHIP	47K	5%	1/10W
R622	1-216-843-11	METAL CHIP	68K	5%	1/10W
R623	1-216-295-00	SHORT CHIP	0		
R625	1-216-845-11	METAL CHIP	100K	5%	1/10W
R626	1-216-295-00	SHORT CHIP	0		
R627	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R628	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R629	1-216-821-11	METAL CHIP	1K	5%	1/10W
R630	1-216-833-11	METAL CHIP	10K	5%	1/10W
R631	1-216-845-11	METAL CHIP	100K	5%	1/10W
R632	1-216-833-11	METAL CHIP	10K	5%	1/10W
R633	1-216-845-11	METAL CHIP	100K	5%	1/10W
R634	1-216-841-11	METAL CHIP	47K	5%	1/10W
R635	1-216-845-11	METAL CHIP	100K	5%	1/10W
R636	1-216-841-11	METAL CHIP	47K	5%	1/10W
R637	1-216-821-11	METAL CHIP	1K	5%	1/10W
R638	1-216-797-11	METAL CHIP	10	5%	1/10W
R639	1-216-797-11	METAL CHIP	10	5%	1/10W
R640	1-216-797-11	METAL CHIP	10	5%	1/10W
R641	1-216-835-11	METAL CHIP	15K	5%	1/10W
R642	1-216-801-11	METAL CHIP	22	5%	1/10W
R643	1-216-845-11	METAL CHIP	100K	5%	1/10W
R644	1-216-845-11	METAL CHIP	100K	5%	1/10W
R645	1-216-845-11	METAL CHIP	100K	5%	1/10W
R646	1-216-845-11	METAL CHIP	100K	5%	1/10W
R648	1-216-809-11	METAL CHIP	100	5%	1/10W
R649	1-216-809-11	METAL CHIP	100	5%	1/10W
R650	1-216-845-11	METAL CHIP	100K	5%	1/10W
R651	1-216-833-11	METAL CHIP	10K	5%	1/10W
R652	1-216-797-11	METAL CHIP	10	5%	1/10W
R653	1-216-821-11	METAL CHIP	1K	5%	1/10W
R654	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R655	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R656	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R657	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R658	1-216-845-11	METAL CHIP	100K	5%	1/10W
R659	1-216-817-11	METAL CHIP	470	5%	1/10W
R660	1-216-821-11	METAL CHIP	1K	5%	1/10W
R661	1-216-821-11	METAL CHIP	1K	5%	1/10W
R662	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R663	1-216-817-11	METAL CHIP	470	5%	1/10W
R664	1-216-809-11	METAL CHIP	100	5%	1/10W
R665	1-216-809-11	METAL CHIP	100	5%	1/10W
R666	1-216-809-11	METAL CHIP	100	5%	1/10W
R667	1-216-809-11	METAL CHIP	100	5%	1/10W
R802	1-216-296-11	SHORT CHIP	0		
R803	1-216-296-11	SHORT CHIP	0		
		< SWITCH >			
S503	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECT) (E)			
S601	1-692-431-21	SWITCH, TACTILE (RESET)			
		< THERMISTOR >			
TH101	1-803-615-21	THERMISTOR, POSITIVE			
TH351	1-801-792-21	THERMISTOR, POSITIVE			
TH601	1-803-615-21	THERMISTOR, POSITIVE			
		< TUNER UNIT >			
TUX401	A-3220-961-A	TUX-032//Q3 (TUNER UNIT)			
		< VIBRATOR >			
X401	1-813-173-11	VIBRATOR, CRYSTAL (8.664MHz) (AEP, UK)			
X501	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)			
X502	1-813-202-11	VIBRATOR, CRYSTAL (32.768kHz)			

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SENSOR **SERVO**

Ref. No.	Part No.	Description			Remark
		SENSOR BOARD			
		**********			
		< SWITCH >			
SW2	1-529-566-61	SWITCH, PUSH (1 KEY) (SELF)			
SW3	1-529-566-61	SWITCH, PUSH (1 KEY) (DISC IN)			
**********					
	A-1132-412-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C7	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C10	1-126-208-21	ELECT CHIP	47uF	20%	4V
C11	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C12	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C13	1-100-567-81	CERAMIC CHIP	10000PF	10%	25V
C14	1-104-609-11	ELECT CHIP	100uF	20%	4V
C15	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C16	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C17	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C18	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C19	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C20	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C22	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C23	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C24	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C25	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C26	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C29	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C30	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C31	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C32	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C33	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C36	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C39	1-126-208-21	ELECT CHIP	47uF	20%	4V
C40	1-126-395-11	ELECT CHIP	22uF	20%	16V
C41	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C42	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C43	1-100-567-81	CERAMIC CHIP	10000PF	10%	25V
C44	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C45	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C46	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C47	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C48	1-100-567-81	CERAMIC CHIP	10000PF	10%	25V
C49	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C50	1-100-567-81	CERAMIC CHIP	10000PF	10%	25V
C51	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C52	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C53	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C54	1-100-567-81	CERAMIC CHIP	10000PF	10%	25V
C55	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C56	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C58	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C60	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C62	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C66	1-100-567-81	CERAMIC CHIP	10000PF	10%	25V
C67	1-100-567-81	CERAMIC CHIP	10000PF	10%	25V
C68	1-100-567-81	CERAMIC CHIP	10000PF	10%	25V
C69	1-100-567-81	CERAMIC CHIP	10000PF	10%	25V
C70	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C71	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C72	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C80	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C132	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C133	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
		< CONNECTOR >			
CN1	1-691-380-61	CONNECTOR, FFC/FPC (ZIF) 16P			
CN2	1-817-275-21	CONNECTOR, BOARD TO BOARD 28P			
		< JUMPER RESISTOR >			
FB2	1-216-864-11	SHORT CHIP	0		
FB3	1-216-864-11	SHORT CHIP	0		
FB4	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC1	6-707-327-01	IC BA5968FP-E2			
IC2	6-708-729-01	IC TC94A70FG-002			
IC3	6-806-019-02	IC MB90486BPFV-G-177E1			
IC6	6-708-728-01	IC BH15LB1WG			
		< TRANSISTOR >			
Q2	6-551-120-01	TRANSISTOR	2SA2119K		
Q3	8-729-928-90	TRANSISTOR	DTC114EE		
Q21	8-729-904-87	TRANSISTOR	2SB1197K-R		
		< RESISTOR/CAPACITOR >			
R1	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2	1-218-977-11	RES-CHIP	100K	5%	1/16W
R5	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6	1-218-969-11	RES-CHIP	22K	5%	1/16W
R7	1-218-990-11	SHORT CHIP	0		
R8	1-218-965-11	RES-CHIP	10K	5%	1/16W
R9	1-218-965-11	RES-CHIP	10K	5%	1/16W
R10	1-218-990-11	SHORT CHIP	0		
R11	1-218-941-11	RES-CHIP	100	5%	1/16W
R12	1-218-969-11	RES-CHIP	22K	5%	1/16W
R13	1-218-969-11	RES-CHIP	22K	5%	1/16W
R14	1-218-929-11	RES-CHIP	10	5%	1/16W
R15	1-218-929-11	RES-CHIP	10	5%	1/16W
R16	1-218-953-11	RES-CHIP	1K	5%	1/16W
R17	1-218-990-11	SHORT CHIP	0		
R18	1-218-941-11	RES-CHIP	100	5%	1/16W
R19	1-218-935-11	RES-CHIP	33	5%	1/16W
R20	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
R21	1-218-941-11	RES-CHIP	100	5%	1/16W
R22	1-218-977-11	RES-CHIP	100K	5%	1/16W
R23	1-218-977-11	RES-CHIP	100K	5%	1/16W
R24	1-218-977-11	RES-CHIP	100K	5%	1/16W
R25	1-218-977-11	RES-CHIP	100K	5%	1/16W
R26	1-218-977-11	RES-CHIP	100K	5%	1/16W
R27	1-218-977-11	RES-CHIP	100K	5%	1/16W
R28	1-218-945-11	RES-CHIP	220	5%	1/16W
R29	1-218-989-11	RES-CHIP	1M	5%	1/16W
R30	1-218-989-11	RES-CHIP	1M	5%	1/16W

Ref. No.	Part No.	Description			Remark
R31	1-218-989-11	RES-CHIP	1M	5%	1/16W
R32	1-218-947-11	RES-CHIP	330	5%	1/16W
R33	1-218-990-11	SHORT CHIP	0		
R34	1-216-864-11	SHORT CHIP	0		
R35	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
R36	1-218-947-11	RES-CHIP	330	5%	1/16W
R37	1-218-947-11	RES-CHIP	330	5%	1/16W
R38	1-218-941-11	RES-CHIP	100	5%	1/16W
R39	1-218-941-11	RES-CHIP	100	5%	1/16W
R40	1-218-941-11	RES-CHIP	100	5%	1/16W
R41	1-218-941-11	RES-CHIP	100	5%	1/16W
R42	1-218-977-11	RES-CHIP	100K	5%	1/16W
R43	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R44	1-218-977-11	RES-CHIP	100K	5%	1/16W
R52	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R53	1-218-979-11	RES-CHIP	150K	5%	1/16W
R54	1-218-990-11	SHORT CHIP	0		
R55	1-218-973-11	RES-CHIP	47K	5%	1/16W
R57	1-218-967-11	RES-CHIP	15K	5%	1/16W
R58	1-218-969-11	RES-CHIP	22K	5%	1/16W
R60	1-218-941-11	RES-CHIP	100	5%	1/16W
R61	1-218-941-11	RES-CHIP	100	5%	1/16W
R62	1-218-941-11	RES-CHIP	100	5%	1/16W
R63	1-218-977-11	RES-CHIP	100K	5%	1/16W
R64	1-218-977-11	RES-CHIP	100K	5%	1/16W
R65	1-218-977-11	RES-CHIP	100K	5%	1/16W
R67	1-218-941-11	RES-CHIP	100	5%	1/16W
R68	1-218-941-11	RES-CHIP	100	5%	1/16W
R69	1-218-941-11	RES-CHIP	100	5%	1/16W
R70	1-218-965-11	RES-CHIP	10K	5%	1/16W
R71	1-218-973-11	RES-CHIP	47K	5%	1/16W
R72	1-218-973-11	RES-CHIP	47K	5%	1/16W
R73	1-218-973-11	RES-CHIP	47K	5%	1/16W
R74	1-218-941-11	RES-CHIP	100	5%	1/16W
R75	1-218-941-11	RES-CHIP	100	5%	1/16W
R77	1-218-973-11	RES-CHIP	47K	5%	1/16W
R78	1-218-941-11	RES-CHIP	100	5%	1/16W
R79	1-218-941-11	RES-CHIP	100	5%	1/16W
R80	1-218-941-11	RES-CHIP	100	5%	1/16W
R81	1-218-941-11	RES-CHIP	100	5%	1/16W
R82	1-218-941-11	RES-CHIP	100	5%	1/16W
R83	1-218-977-11	RES-CHIP	100K	5%	1/16W
R84	1-218-941-11	RES-CHIP	100	5%	1/16W
R85	1-218-977-11	RES-CHIP	100K	5%	1/16W
R86	1-218-941-11	RES-CHIP	100	5%	1/16W
R87	1-218-977-11	RES-CHIP	100K	5%	1/16W
R96	1-218-941-11	RES-CHIP	100	5%	1/16W
R97	1-220-200-81	RES-CHIP	30K	5%	1/16W
R98	1-218-971-11	RES-CHIP	33K	5%	1/16W
R132	1-218-969-11	RES-CHIP	22K	5%	1/16W
R133	1-218-953-11	RES-CHIP	1K	5%	1/16W
R141	1-216-864-11	SHORT CHIP	0		
R144	1-216-864-11	SHORT CHIP	0		
R147	1-216-864-11	SHORT CHIP	0		
		< SWITCH >			
SW1	1-529-565-61	SWITCH, PUSH (1 KEY) (DOWN)			

Ref. No.	Part No.	Description	Remark
		< VIBRATOR >	
X1	1-813-678-11	OSCILLATOR, CERAMIC (CHIP TYPE) (12MHz)	
X2	1-795-561-21	VIBRATOR, CERAMIC (16.9344MHz)	
**********			
		SUB BOARD	
		**********	
		< CONNECTOR >	
CN902	1-818-142-11	SOCKET, CONNECTOR 20P	
		< DIODE >	
D902	8-719-978-33	DIODE DTZ-TT11-6.8B	
D903	8-719-978-33	DIODE DTZ-TT11-6.8B	
		< LED >	
LED902	6-500-204-01	LED CL-190UB2-X-T (KEY ILLUMINATION)	
LED903	6-500-895-01	LED CL-270UB2-X-TS	(DISC SLOT ILLUMINATION)
		< RESISTOR >	
R903	1-216-809-11	METAL CHIP 100 5%	1/10W
		< SWITCH >	
S901	1-786-653-11	SWITCH, TACTILE (⏏)	
**********			
		MISCELLANEOUS	
		**********	
2	1-831-502-11	CABLE, FLEXIBLE FLAT (22 CORE)	
11	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	(US, CND, E)
11	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)	(AEP, UK)
14	1-833-121-11	CABLE, FLEXIBLE FLAT (40 CORE)	
16	1-827-266-41	CABLE, COAXIAL (WITH U.F.L CON	
18	1-790-355-54	CORD (WITH CONNECTOR) (RCA)	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/C-RP1)	
CN903	1-820-484-11	CONNECTOR, USB (MINI A.B)	
ENC702	1-479-832-12	ENCODER, ROTARY (SWITCH)	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A/32V)	
FL701	1-519-842-21	VACUUM FLUORESCENT DISPLAYS	
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)	
M903	A-1206-596-A	LE MOTOR ASSY (A) (LOADING)	
MIC500	1-542-689-11	MICROPHONE	
SW4	1-786-339-11	SWITCH (M) (LIMIT)	
**********			

Ref. No.	Part No.	Description	Remark
		ACCESSORIES	
		**********	
	1-474-006-11	REMOTE COMMANDER (RM-X301) (US, CND)	
	1-474-006-21	REMOTE COMMANDER (RM-X302) (AEP, UK)	
	1-474-006-31	REMOTE COMMANDER (RM-X303) (E)	
	2-693-038-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, ITALIAN, DUTCH, RUSSIAN)	(AEP, UK)
	2-693-038-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH)	(US, CND)
	2-693-038-31	MANUAL, INSTRUCTION (ENGLISH, SPANISH, SIMPLIFIED CHINESE)	(E)
	2-693-039-11	MANUAL, INSTALL INSTRUCTION (ENGLISH, FRENCH, GERMAN, ITALIAN, DUTCH, RUSSIAN)	(AEP, UK)
	2-693-039-21	MANUAL, INSTALL INSTRUCTION (ENGLISH, FRENCH, SPANISH)	(US, CND)
	2-693-039-31	MANUAL, INSTALL INSTRUCTION (ENGLISH, SPANISH, SIMPLIFIED CHINESE)	(E)
	2-693-040-11	QUICK GUIDE (ENGLISH, FRENCH, GERMAN)	(AEP, UK)
	2-693-040-21	QUICK GUIDE (ENGLISH, FRENCH, SPANISH)	(US, CND)
	2-693-040-31	QUICK GUIDE (ENGLISH, SPANISH, SIMPLIFIED CHINESE)	(E)
	2-693-040-41	QUICK GUIDE (ITALIAN, DUTCH, RUSSIAN)	(AEP, UK)
	2-548-730-01	LID, BATTERY CASE (for RM-X301, RM-X302, RM-X303)	
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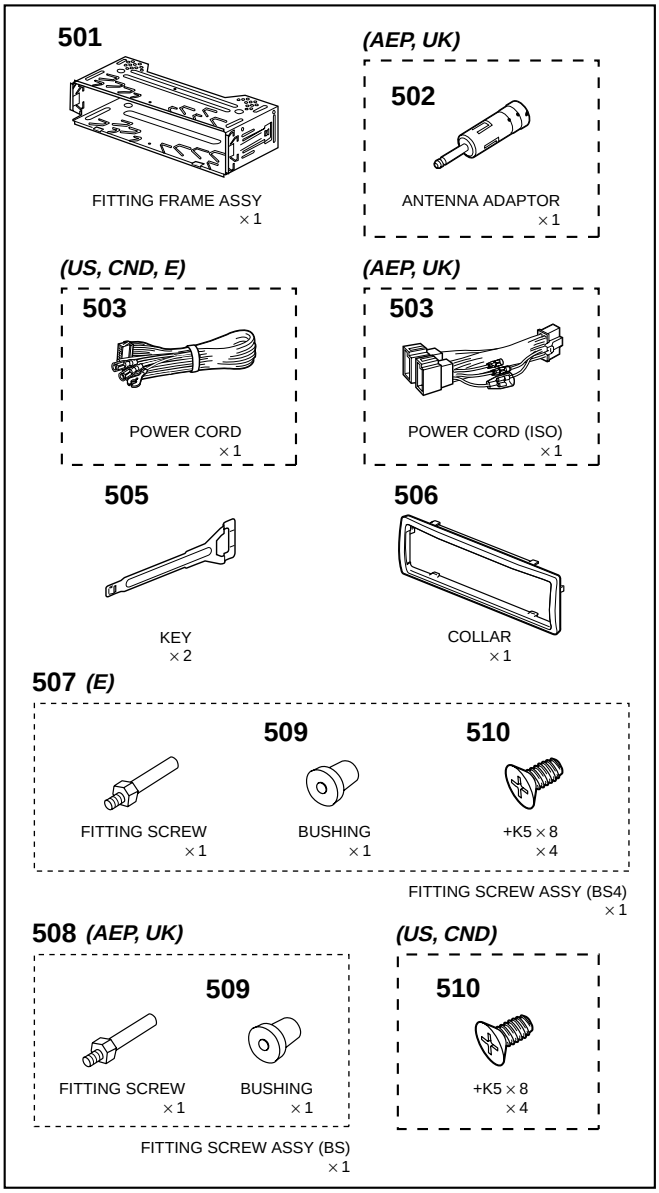
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
501	X-3382-647-1	FRAME ASSY, FITTING	
502	1-465-459-31	ADAPTER, ANTENNA (AEP, UK)	
503	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	(US, CND, E)
503	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)	(AEP, UK)
505	3-246-471-01	KEY (FRAME)	
506	2-668-798-01	COLLAR	
507	X-3381-154-1	SCREW ASSY (BS4), FITTING (E)	
508	X-3382-926-1	SCREW ASSY (BS), FITTING (AEP, UK)	
509	3-349-410-11	BUSHING (AEP, UK, E)	
510	3-934-325-01	SCREW, +K (5X8) TAPPING (US, CND, E)	

Ref. No.	Part No.	Description	Remark



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REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2006.06	New